
THE TENMILE ALLUVIAL FAN NEIGHBORHOOD PLAN

-
1. EXISTING CONDITIONS ANALYSIS
 2. BUILDOUT ANALYSIS
 3. GROWTH POLICY CONSISTENCY
 4. PUBLIC INPUT
 5. RECOMMENDED DEVELOPMENT PATTERN
-

An examination of the Tenmile Alluvial Fan Neighborhood

To be incorporated into the proposed Tenmile Alluvial Fan Neighborhood Plan

June 29, 2020

TABLE OF CONTENTS

CHAPTER 1: EXISTING CONDITIONS	1
Neighborhood	1
Location.....	1
Neighborhood Boundaries.....	3
Physical Settings.....	5
Natural Environment.....	5
Human Environment.....	9
Neighborhood Land Use Characteristics.....	27
Existing Land Use	27
Housing	28
Population.....	28
Entitlements.....	28
Zoning.....	31
CHAPTER 2 – BUILDOUT ANALYSIS	32
Build-out Analysis.....	32
Exclusion of the Floodplain Acreage	33
Scenario 1: ¼ Acre Lots (10,890 Square Feet).....	33
Scenario 2: 1.5-Acre Lots.....	33
Scenario 3: 10-Acre Lots.....	34
Projected Impacts to Natural Resources and Infrastructure	34
CHAPTER 3 – CONSISTENCY WITH GROWTH POLICY.....	38
Urban Growth Area Goals.....	39
Urban Growth Area Infrastructure Improvements Actions.....	39
Urban Growth Area Density Controls	40
Urban Growth Area Improved Performance Standards	40
Urban Growth Area Education and Outreach.....	40
Transitional Growth Area Goals.....	41
Transitional Growth Area Infrastructure Improvements.....	41
Transitional Growth Area Density Controls	41
Transitional Growth Area Improved Performance Standards	41
Transitional Growth Area Education and Outreach.....	42
CHAPTER 4 – PUBLIC INPUT	43

Stated Intent of the Tenmile Alluvial Fan [Special Zoning District 51] Petitioners	43
CHAPTER 5 – GOALS FOR A DEVELOPMENT PATTERN	44
APPENDIX A – ROAD CONDITION PHOTOGRAPHS.....	57

LIST OF FIGURES

Figure 1: Location of Tenmile Alluvial Fan Neighborhood in Relation to Helena, MT.....	2
Figure 2: The Tenmile Alluvial Fan Neighborhood Plan Boundary	4
Figure 3: Farmland Classification for the Neighborhood and Surrounding Area	6
Figure 4: Floodplain for the Neighborhood and Surrounding Area	8
Figure 5: Geology and Geologic Faults of the Helena Valley (2004 Growth Policy)	10
Figure 6: Land Cover in the Helena Valley (2004 Growth Policy)	11
Figure 7: Crucial Area Planning System (CAPS) Map of the Neighborhood (MT FWP).....	12
Figure 8: Aerial View of Neighborhood and Surrounding Area	14
Figure 9: Land Uses Surrounding the Neighborhood.....	15
Figure 10: Location of Existing Zoning Districts in Relation to the Neighborhood	16
Figure 11: Property Ownership in the Neighborhood and Surrounding Area	17
Figure 12: Road Network in the Neighborhood and Surrounding Area	19
Figure 13: Road Network within the Neighborhood	20
Figure 14: Location of Traffic Counts on Travel Routes to and within the Neighborhood	21
Figure 15: Rural Improvement Districts in and Near the Neighborhood.....	25
Figure 16: Location of Groundwater Wells in the Neighborhood and Surrounding Area	26
Figure 17: Existing Land Uses within the Neighborhood (MT Department of Revenue (DOR))	29
Figure 18: Parcel Sizes within and Surrounding the Neighborhood	30
Figure 19: Helena Valley Area Plan Growth Management Areas	38

LIST OF TABLES

Table 1: Potential impacts of full build-out with 1/4-acre lots.....	33
Table 2: Potential impacts of full build-out with 1.5acre lots.....	34
Table 3 - Potential impacts of full build out with 10-acre lots.....	34

CHAPTER 1: EXISTING CONDITIONS

NEIGHBORHOOD

Location

The Tenmile Alluvial Fan neighborhood is located in Lewis and Clark County, Montana less than one mile north of the City Limits of Helena (Figure 1).

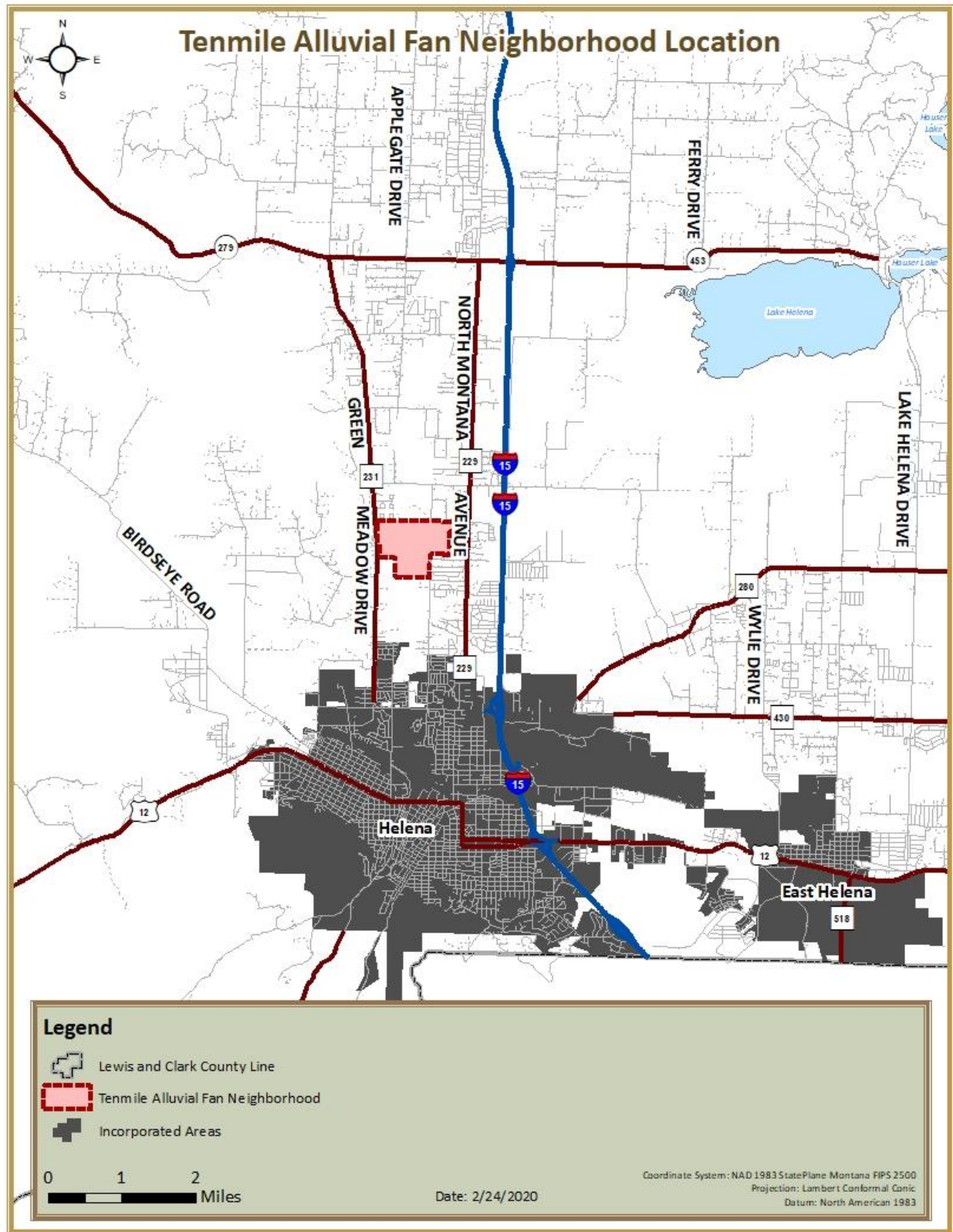


Figure 1: Location of Tenmile Alluvial Fan Neighborhood in Relation to Helena, MT

Neighborhood Boundaries

The Lewis and Clark County Commission established the boundaries for this Neighborhood Plan (neighborhood) on January 7, 2020. The neighborhood is approximately 389 acres in size and is bounded by Forestvale Road to the north and Green Meadow Drive on its west side between Forestvale Road and Mill Road, and then follows private property lines on the remainder of its west, south and east sides. Figure 2 shows this boundary.

The neighborhood can be described as all lands, public and private, lying within a portion of Section 1, T10N, R4W and portions of Sections 6 and 7, T10N, R3W, P.M.M., Lewis and Clark County, Montana.

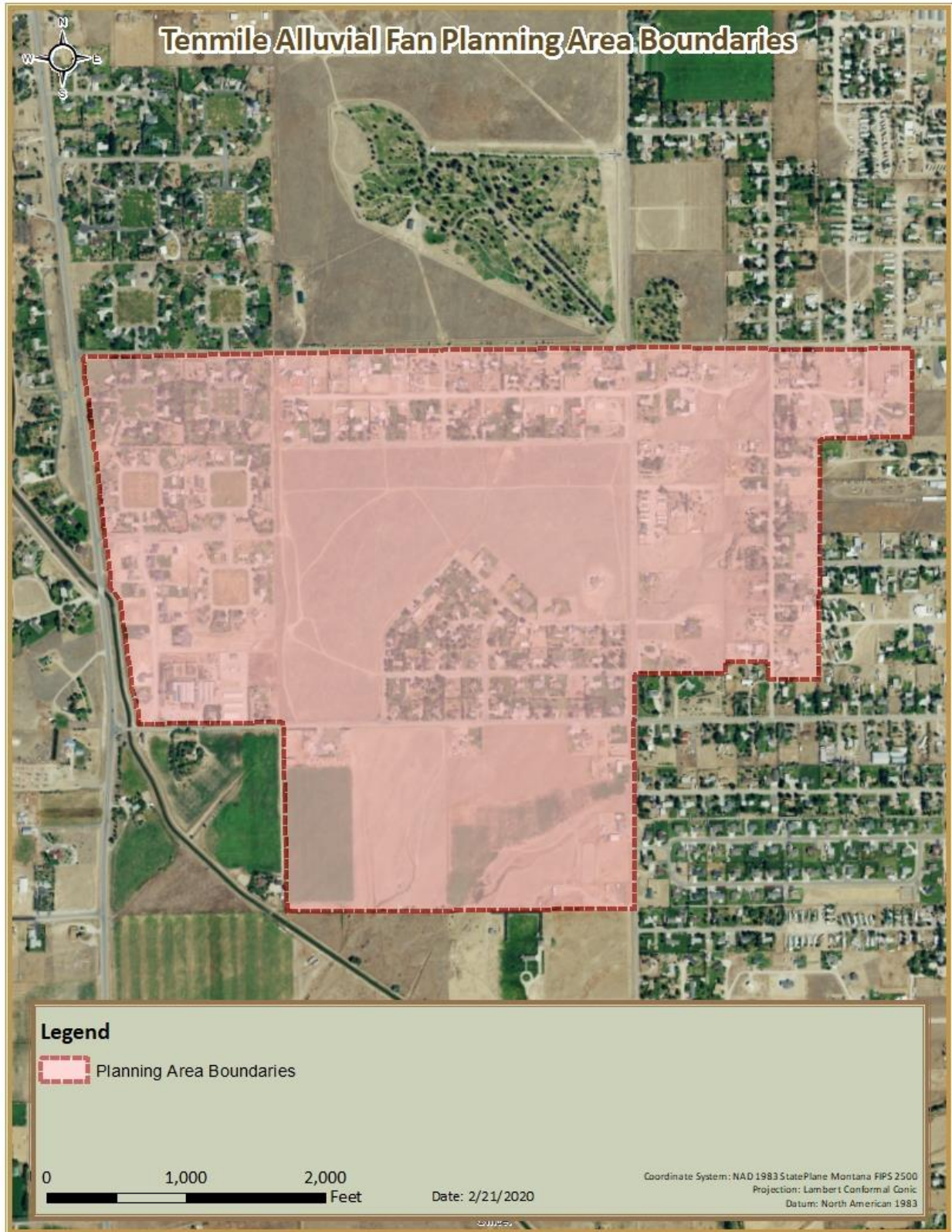


Figure 2: The Tenmile Alluvial Fan Neighborhood Plan Boundary

PHYSICAL SETTINGS

Natural Environment

Area Description

The Tenmile Alluvial Fan neighborhood is located in the western part of the Helena Valley, just over one-half of a mile north of Tenmile Creek. The southeast extension of the Scratchgravel Hills is located approximately one-tenth of a mile from the northwest corner of the neighborhood, and both Green Meadow Drive and a section of the Helena Valley Irrigation Canal abut the western boundary of the neighborhood. Forestvale Road forms the northern boundary. The southern boundary of the neighborhood abuts primarily large agricultural/residential lots and the eastern boundary abuts a primarily residential area with smaller lots.

Climate

The climate in this part of the Helena Valley is semi-arid, characterized by low precipitation, mild summers, and cold winters. Elevation has a noticeable role in the amount of precipitation received each year, with higher elevations surrounding the Valley receiving greater amounts than the “rain shadowed” Valley. An official weather station is located at the Helena Regional Airport.

Water Quantity

Water quantity can be a problem in some areas of the Helena Valley. The following is a description of groundwater availability in the area of the neighborhood as provided by James Swierc from the Lewis and Clark County Water Quality Protection District (WQPD):

“...groundwater occurs in an unconfined, unconsolidated sand and gravel aquifer with the regional flow direction generally to the north/northeast across the area. Pumping from wells may alter this locally. Groundwater recharge occurs from infiltration of precipitation and stream loss from the main HVID irrigation canal when operating.”

Water well information provided by the WQPD shows that well depths in the area of the neighborhood are generally less than 100 feet and most have shallow static water levels. The WQPD indicated that wells located in the neighborhood generally provide good yields. The WQPD further indicated that data collected for water levels in and near the eastern part of the neighborhood show a general depth of water ranging from 15 feet to 20 feet, with seasonal fluctuations during a normal precipitation year.

Based upon the information provided by the WQPD, water availability in the area of the neighborhood appears to be good.

Water Quality

James Swierc, from the WQPD, also provided water quality data available from two wells located near the neighborhood. These wells are identified by the Groundwater Information Center (GWIC) at the Montana Bureau of Mines and Geology (MBMG) as numbers 61368 and 278709. According to Mr. Swierc:

“....data from well 61368 was collected as part of the MBMG Ground Water Investigation Program study of the Scratchgravel Hills area west of the Helena Valley. The data for well 278709 was collected as part of the Helena Valley Non-Point Source Assessment study completed by the Lewis

& Clark Water Quality District in 2015. No analytes were detected at levels exceeding any primary or secondary drinking water standard.”

An analyte would be defined as the substance whose chemical constituents would be identified and measured in each study. This would include things such as heavy metals like mercury. Based upon the information provided by the WQPD, the water quality in the area of the neighborhood appears to be acceptable.

Geology and Soils

The neighborhood is located on soils classified by the 2004 County Growth Policy as being “quaternary alluvium.” These are deposits of alluvium, which mainly consist of poorly sorted sand, gravel, and boulders deposited by the historic flow of water through the area. From an agricultural perspective, the Natural Resource and Conservation Service classifies two soils in the neighborhood as being of either statewide importance or prime farmland if irrigated. These are Assiniboine-Chinook (238B) and Thess-Loam (209A) respectively. See Figure 3 for the locations of these soils.

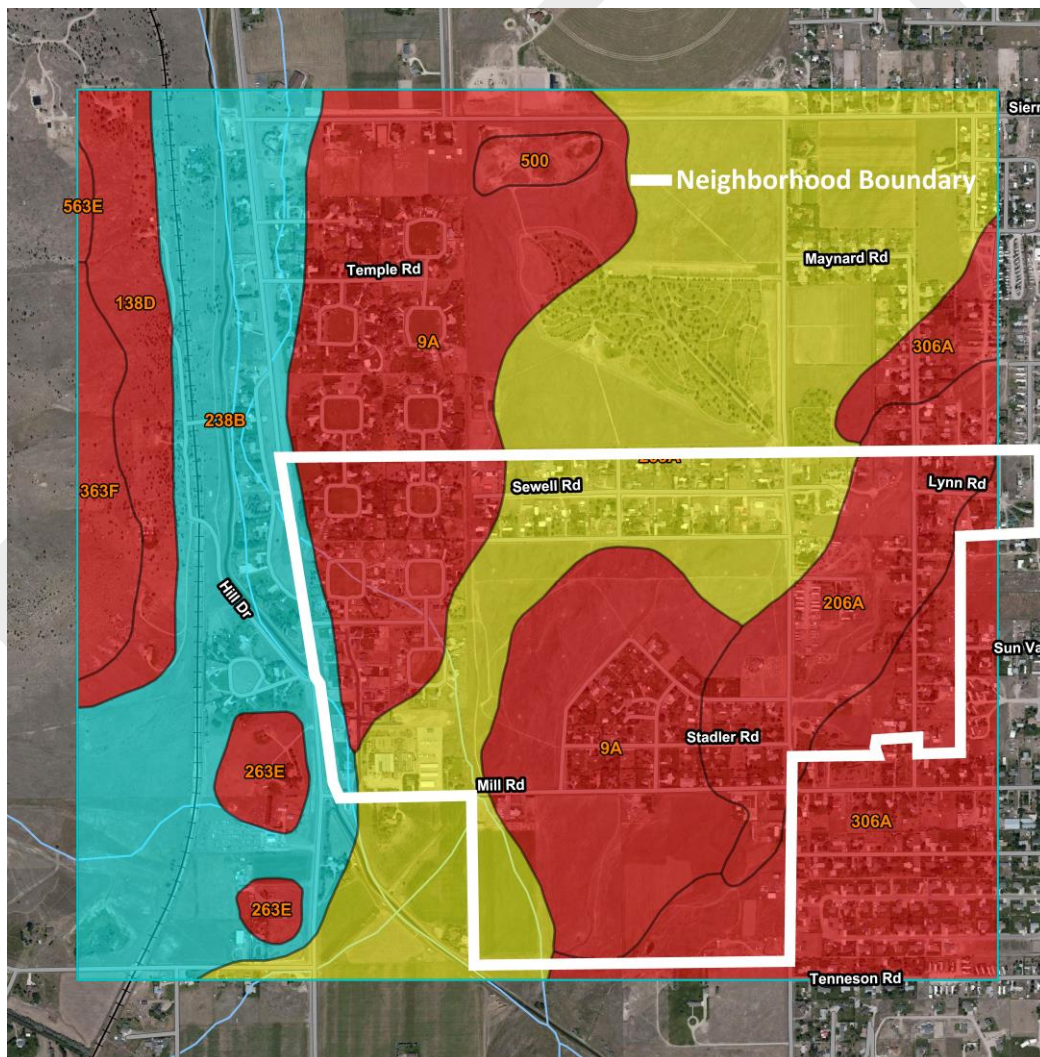


Figure 3: Farmland Classification for the Neighborhood and Surrounding Area

Natural Hazards

The neighborhood is not without natural hazards. The primary concerns are from flooding, wildland fire, and earthquakes.

Floodplain

Floodplain is located in the neighborhood. According to the Flood Insurance Rate Map (FIRM) that covers the neighborhood, there are several areas that are located in Special Flood Hazard Areas (100-year floodplain), specifically areas designated as Zone AO. Zone AO floodplains generally include areas of sheet flooding that have flood depths ranging from 1 to 3 feet. See Figure 4 for the location of the Zone AO floodplain in this neighborhood.

The presence of floodplain in the neighborhood does pose constraints for the construction of new structures on both existing lots and for any potential future subdivisions. In addition, construction on existing lots located in the 100-year floodplain would have to meet the requirements of the Lewis and Clark County Floodplain Ordinance, including elevating any new structures a minimum of two (2) feet above the base flood elevation. With regard to any potential subdivision of lands located in the 100-year floodplain, new lots created would have to provide a building site located outside this floodplain. The siting of any new septic systems for wastewater treatment would need to be located a minimum of 100 feet from the edge of the 100-year floodplain as well.

Wildland Fire

According to the 2004 Growth Policy, the neighborhood is designated as having a 'low' wildfire risk rating. Such a rating does not mean that the area is not at risk from the impacts of wildland fires, however. For example, in 2012 a wildland fire that burned in the nearby Scratchgravel Hills prompted resident evacuations and resulted in property damage and loss. It is important to note that some of the areas affected by this fire were not designated as having a high or severe fire hazard rating per the existing hazard rating maps.

Much of the neighborhood is located in or adjacent to grassland. This is a fuel type that tends to have very high rates of flame spread, especially when wind driven. Thus, while the risk for wildfire may be low in the neighborhood, it is still a possibility.

Earthquakes

The Helena Valley is the site of the second largest recorded earthquake in the State of Montana and is considered to be at risk for another sizeable event. Seismic data from the Montana Bureau of Mines and Geology indicates that bedrock in the Helena Valley is approximately 6,000 feet below the surface of Lake Helena and slopes up and shallows in the southwest portion of the Valley. The west side of the

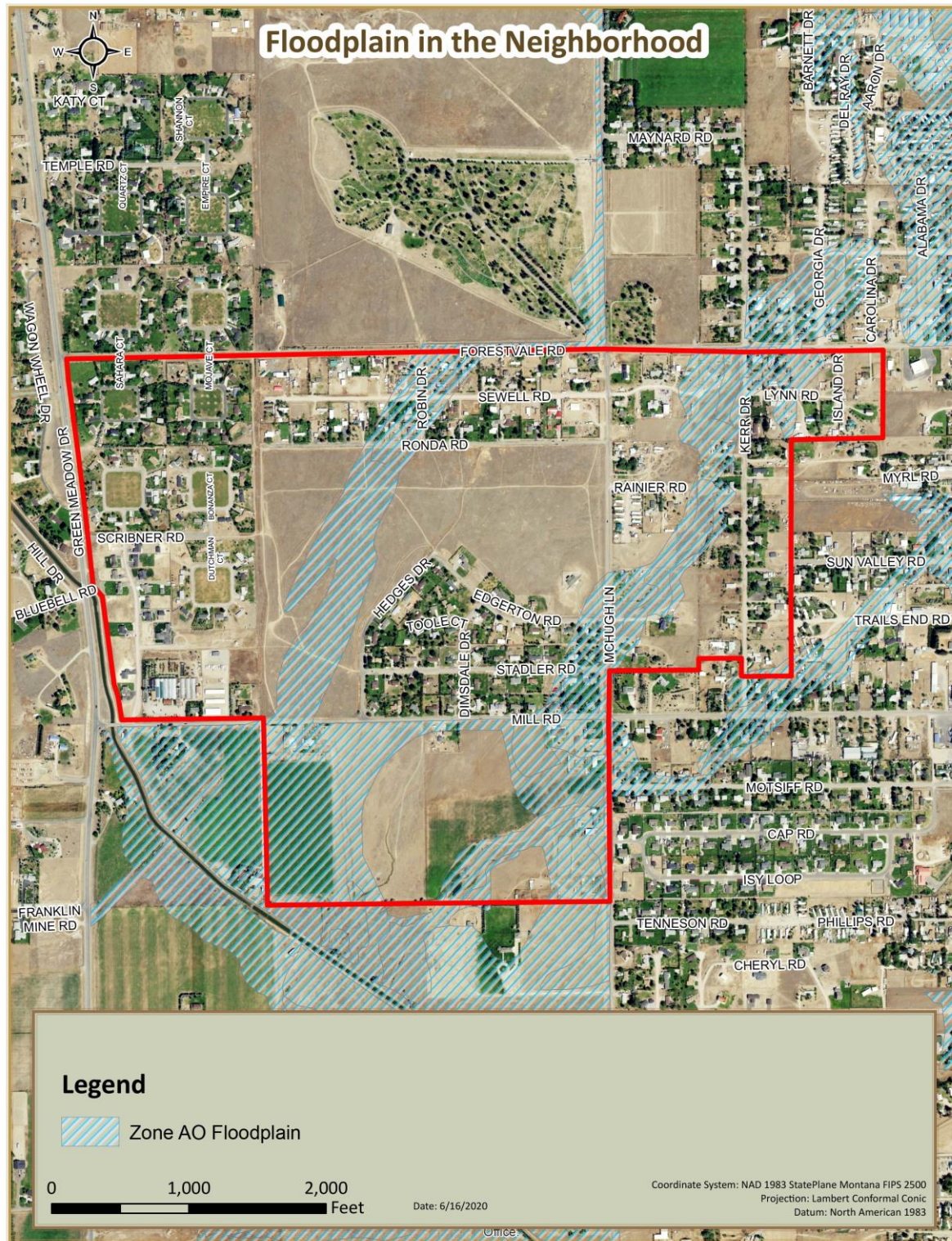


Figure 4: Floodplain for the Neighborhood and Surrounding Area

Helena Valley is bounded by the Scratchgravel Hills fault, which runs parallel to Green Meadow Drive and is located northwest of the neighborhood.

The neighborhood is also located on soils that are identified as having a susceptibility to liquefaction ranging from low to high. Liquefaction occurs when loosely packed, water-logged sediments at or near the ground surface lose their structural strength in response to strong ground shaking, which can be caused by an earthquake. Liquefaction can cause structural damage to buildings and other infrastructure including roads, utilities, and water and sewer lines. Figure 5, from the 2004 Growth Policy, shows the geology and geologic faults in the Helena Valley.

Wildlife

According to a map of landcover types in the 2004 Growth Policy, there are two predominant landcover types in the neighborhood: grassland and urban development. There are also smaller riparian areas and agricultural lands located in the neighborhood. Figure 6 shows the land cover types for the Helena Valley.

The Montana Department of Fish, Wildlife and Parks Crucial Area Planning System (CAPS) is an online system used to generalize the potential of lands for the existence of wildlife and the quality of wildlife habitat in Montana. The system rates each one-mile section on a class scale, typically 1 through 6, with Class 1 representing the highest quality and Class 6 representing the lowest quality for wildlife resources. The system also considers a number of different resources.

According to a review of the CAPS ranking system, there is potential for wildlife in the neighborhood. CAPS ranks the habitat quality in the neighborhood from a 3 to a 2. It is important to note that the ranking system is likely using the Forestvale and Oddfellows Cemeteries, along with an abandoned gravel pit located south of Sierra Road and west of North Montana Avenue, to help calculate its rankings. Thus, the map may not be an accurate representation of the true habitat values in the neighborhood. Also, observed wildlife sighting in the neighborhood may differ from the classifications provided by CAPS. Figure 7 shows the CAPS ranking for the neighborhood and surrounding area. For more information on CAPS, please visit <http://fwp.mt.gov/gis/maps/caps/>.

Human Environment

Area Description

Land uses in the area surrounding the neighborhood are a mix of residential, commercial, and agricultural/open space uses. Figure 8 is an aerial view of the neighborhood and surrounding area. Uses located north of the neighborhood include suburban residential homes to the northwest, agricultural lands, and Forestvale Cemetery directly to the north, and Odd Fellows Cemetery to the northeast. East of the neighborhood are residential properties comprised of mostly single-family homes. Located west of the neighborhood is Green Meadow Drive, the Helena Valley Irrigation Canal,

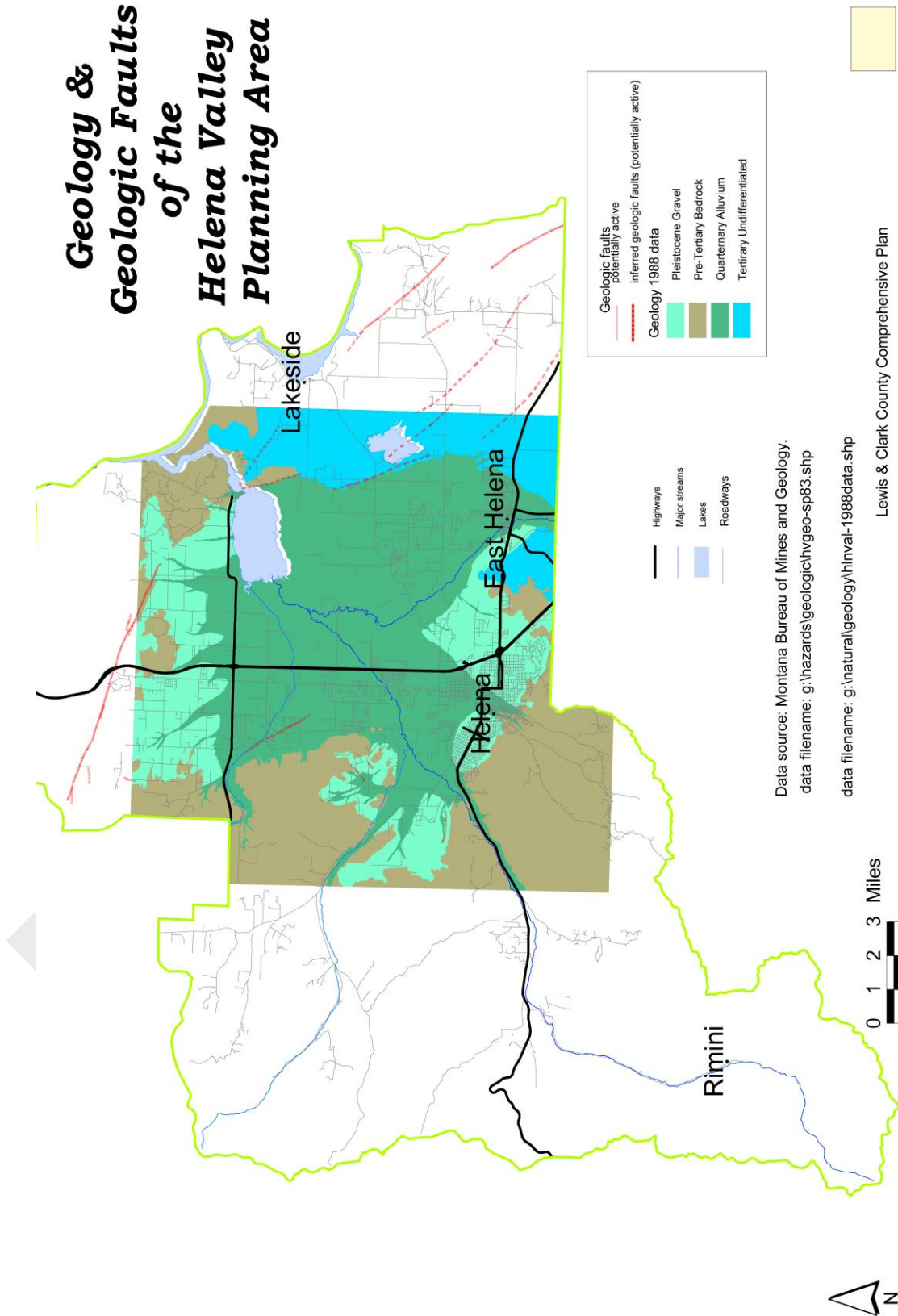


Figure 5: Geology and Geologic Faults of the Helena Valley (2004 Growth Policy)

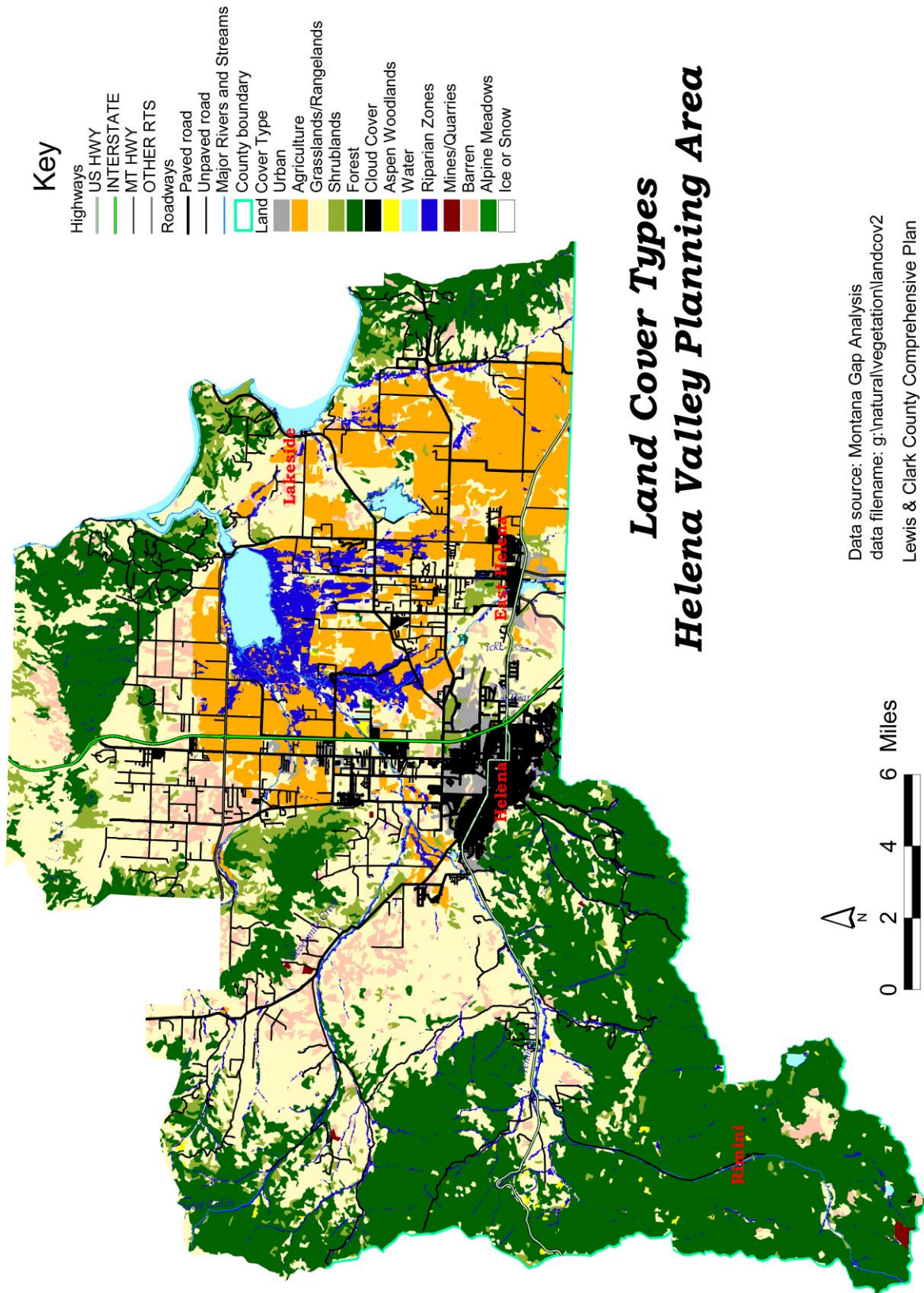


Figure 6: Land Cover in the Helena Valley (2004 Growth Policy)

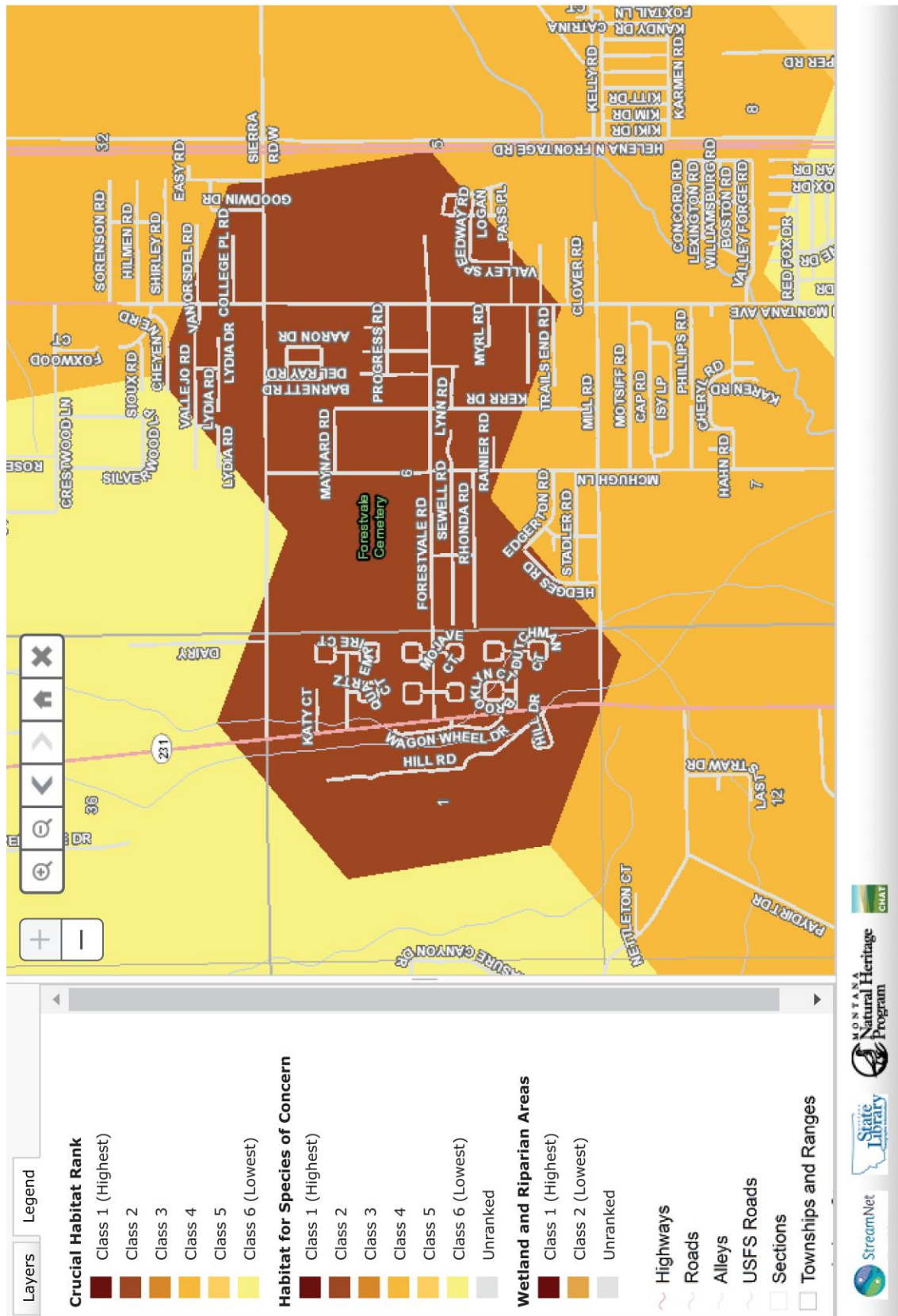


Figure 7: Crucial Area Planning System (CAPS) Map of the Neighborhood (MT FWP)

some suburban and rural residential development, and land owned by either the federal government or Lewis and Clark County. South of the neighborhood are primarily agricultural uses and large lot residential developments. Figure 9 shows the land uses surrounding the neighborhood as determined using the Cadastral Data from the Montana Department of Revenue (DOR).

There are six zone districts located within one-half of a mile of the neighborhood. These include Special Zone District (SZD) Nos. 2, 13-A, 23, 25, 37, 39, and 45. South and southeast of the neighborhood are SZD No. 2 (A-1), an agricultural zone, and SZD No. 13-A (CR-1), a suburban residential zone. To the east lies SZD No. 37, an area comprised of suburban and rural residential development, with some commercial development located along North Montana Avenue. To the west lies SZD Nos. 23 and 45, which are primarily large lot, rural residential development. To the southwest of the neighborhood are SZD Nos. 25 and 39, which are also primarily large lot, rural residential development. See Figure 10 for the location of existing zone districts in close proximity to the neighborhood.

Infrastructure in the neighborhood and surrounding area is typical for the type of residential and commercial development that exists. Road surfacing in the neighborhood and surrounding area varies from hard-surfaced (asphalt pavement/chip-sealing) to gravel. Road quality also varies from very well maintained with smooth surfaces to poorly maintained with ruts and potholes. Electrical power and telephone service (landlines) is provided through a mix of buried cable and overhead service. Natural gas is also provided in this area. There are no sidewalks, bike paths, parks or other pedestrian/bicycle facilities located in or near the neighborhood.

Property ownership within the neighborhood is entirely private in nature. Public lands owned by the Bureau of Land Management and Lewis and Clark County are located within a ¼ of a mile west of the neighborhood. See Figure 11 for the property ownership in and around the neighborhood.

The neighborhood is located two (2) road miles from Custer Avenue and the City of Helena. Because of this, the City's amenities are readily available to residents and they can easily live in the neighborhood and work in Helena. As such, the neighborhood would be considered a bedroom community of Helena.

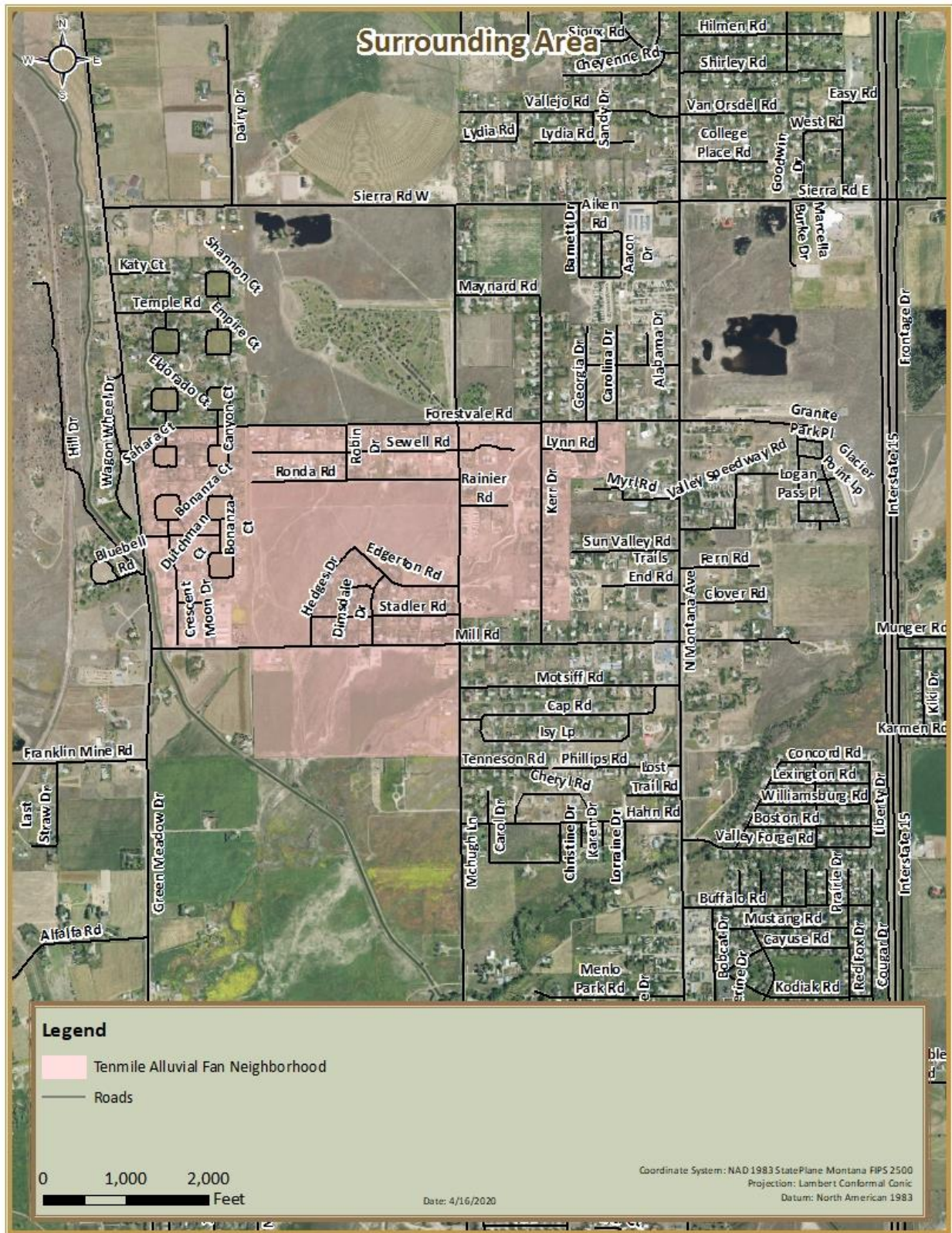


Figure 8: Aerial View of Neighborhood and Surrounding Area

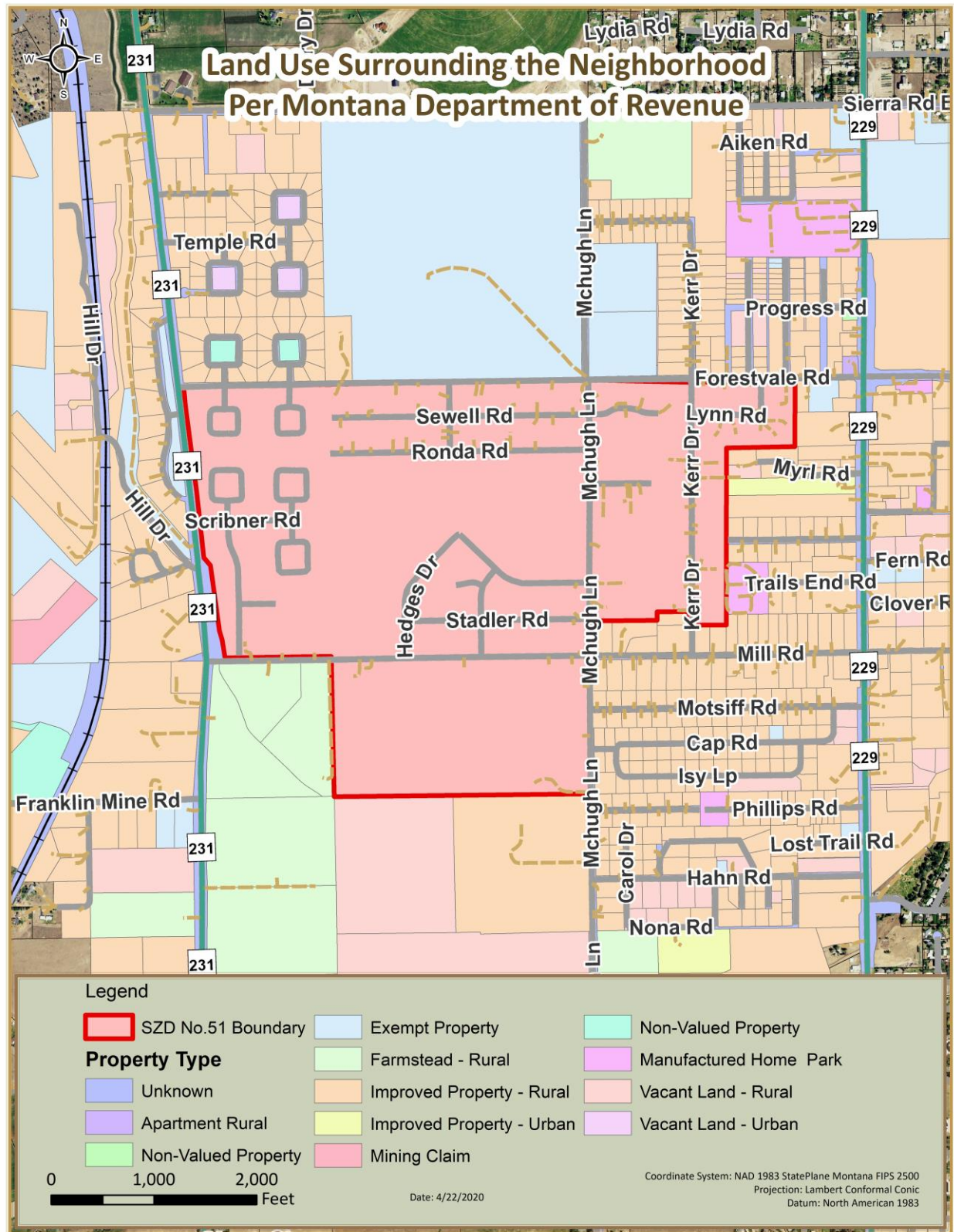


Figure 9: Land Uses Surrounding the Neighborhood

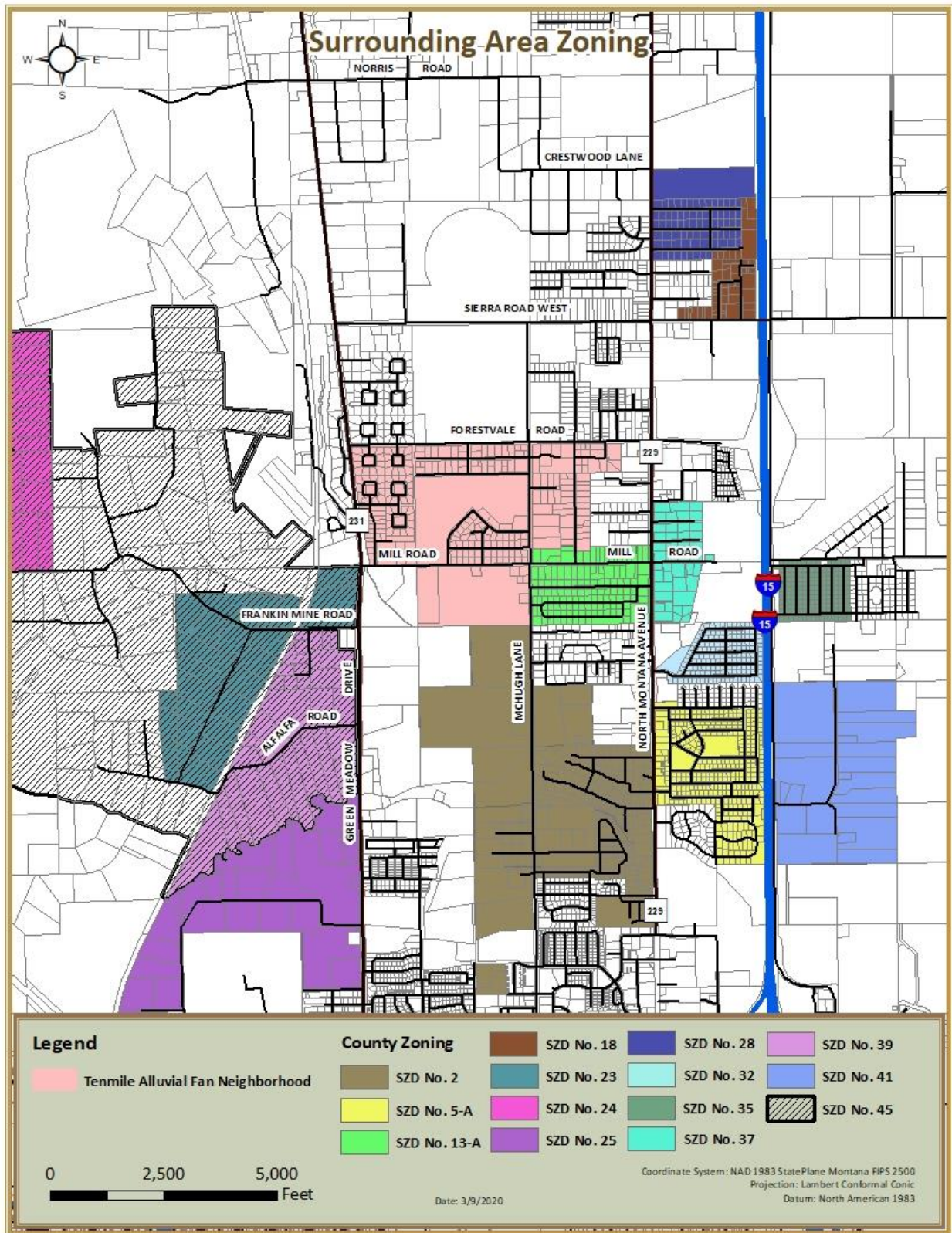


Figure 10: Location of Existing Zone Districts in Relation to the Neighborhood

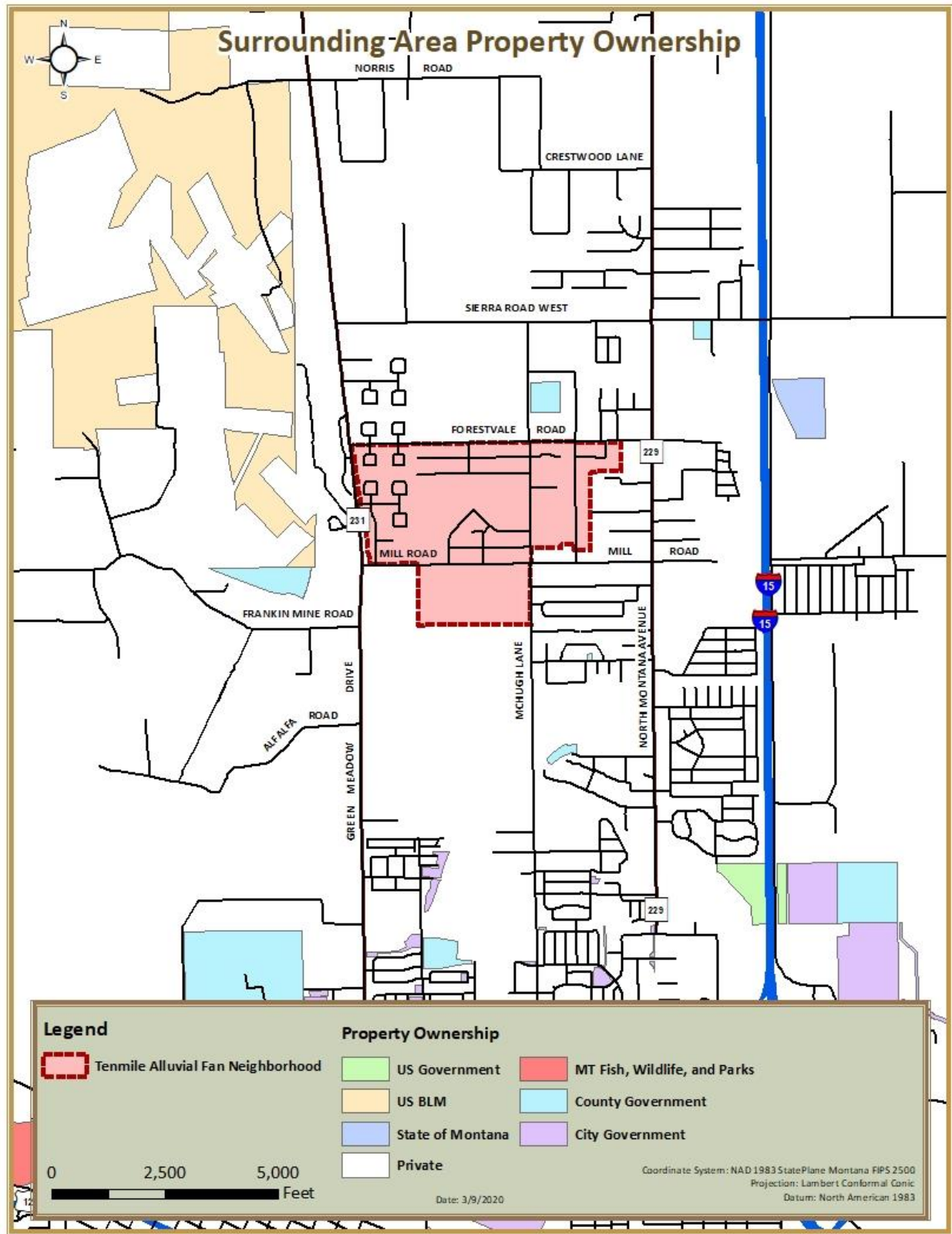


Figure 11: Property Ownership in the Neighborhood and Surrounding Area

Transportation

Road Network

A network of roads provides vehicle ingress and egress to the neighborhood and surrounding area. No other transportation infrastructure is available. Figure 12 shows the road network surrounding the neighborhood. Forestvale Road and Mill Road provide the primary east-west accesses to Green Meadow Drive, McHugh Lane, and North Montana Avenue, which are the most direct routes to services in the City of Helena. Within the neighborhood, the main north-south road is McHugh Lane. Figure 13 shows the road network located within the interior of the neighborhood.

Current Traffic Volume and Routes

The County regularly measures the average daily trips (ADT) for vehicles on the major roads used to access the neighborhood. ADT, also referred to as mean daily traffic, is the average number of vehicles that travel through a specific point of a road over a short duration time period (often 7 days or less). The following are the ADT's provided by the County Engineer by road intersection and year:

- Green Meadow Drive north of Custer Avenue - 4,653 ADT (2016).
- McHugh Lane south of Forestvale Road - 1,229 ADT (2018).
- McHugh Lane north of Custer Avenue - 4597 ADT (2017).
- Mill Road west of North Montana Avenue - 1,752 ADT (2017).
- Mill Road east of Green Meadow Drive - 964 ADT (2017).
- Forestvale Road east of Green Meadow Drive - 483 ADT (2018).
- Forestvale Road west of McHugh Lane - 706 ADT (2018).
- Forestvale Road east of McHugh Lane - 709 ADT (2018).
- Forestvale Road west of North Montana Avenue - 932 ADT (2018).

See Figure 14 for these ADT locations.

Estimates of the amount of existing traffic generated within the neighborhood were based on the following assumptions:

- The typical land use in the neighborhood is single-family residential; and
- The typical ADT generated by a single-family residence is 9.52 vehicle trips per day.

Using the cadastral data provided by the Montana Department of Revenue (DOR), there are approximately 242 single-family homes in the neighborhood. This number multiplied by 9.52 vehicle trips per day indicates that the existing residential development in the neighborhood is estimated to generate 2,300 ADT. It is likely that a majority of vehicle traffic in and out of the neighborhood uses either Green Meadow Drive or McHugh Lane to access the City of Helena.

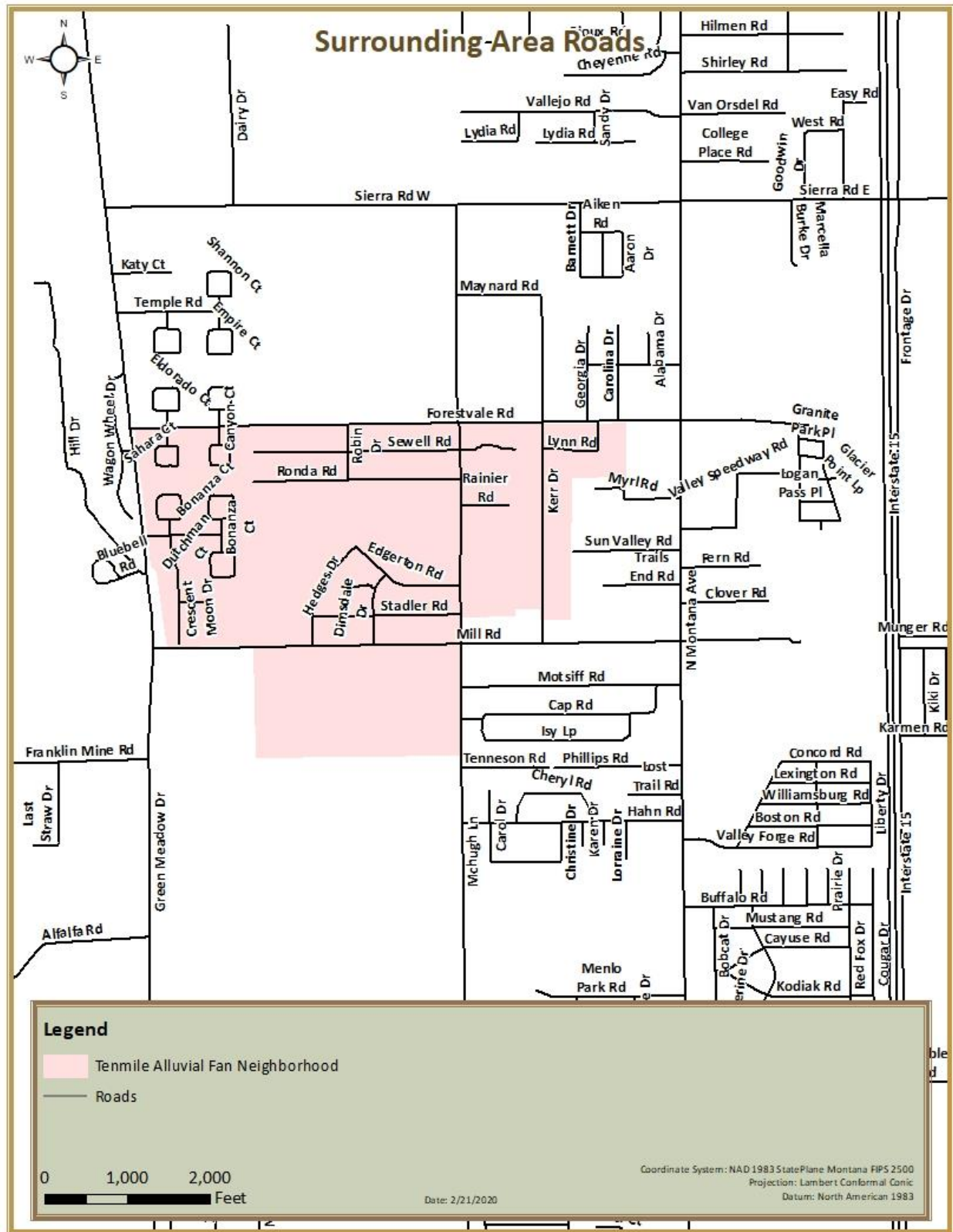


Figure 12: Road Network in the Neighborhood and Surrounding Area

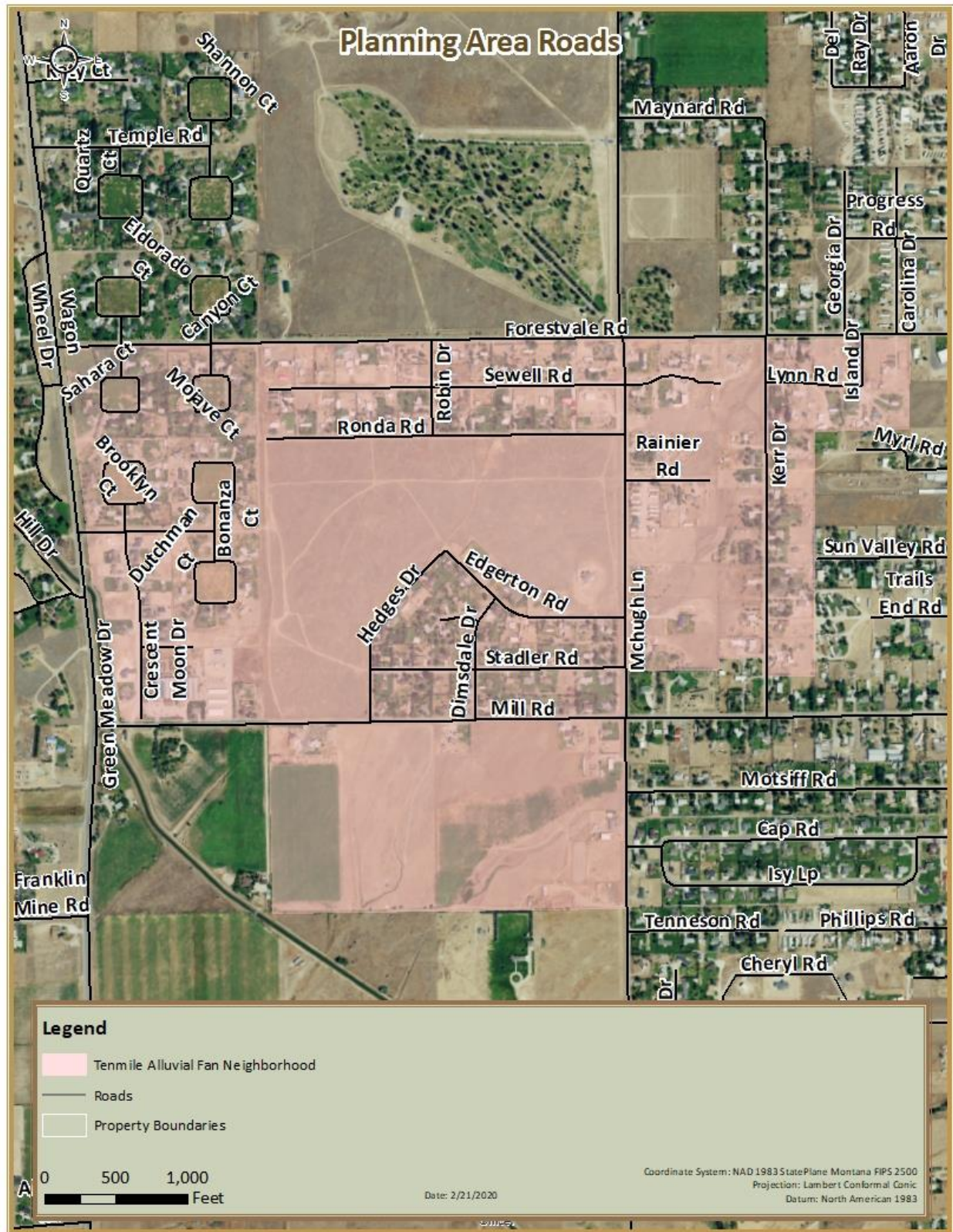


Figure 13: Road Network within the Neighborhood

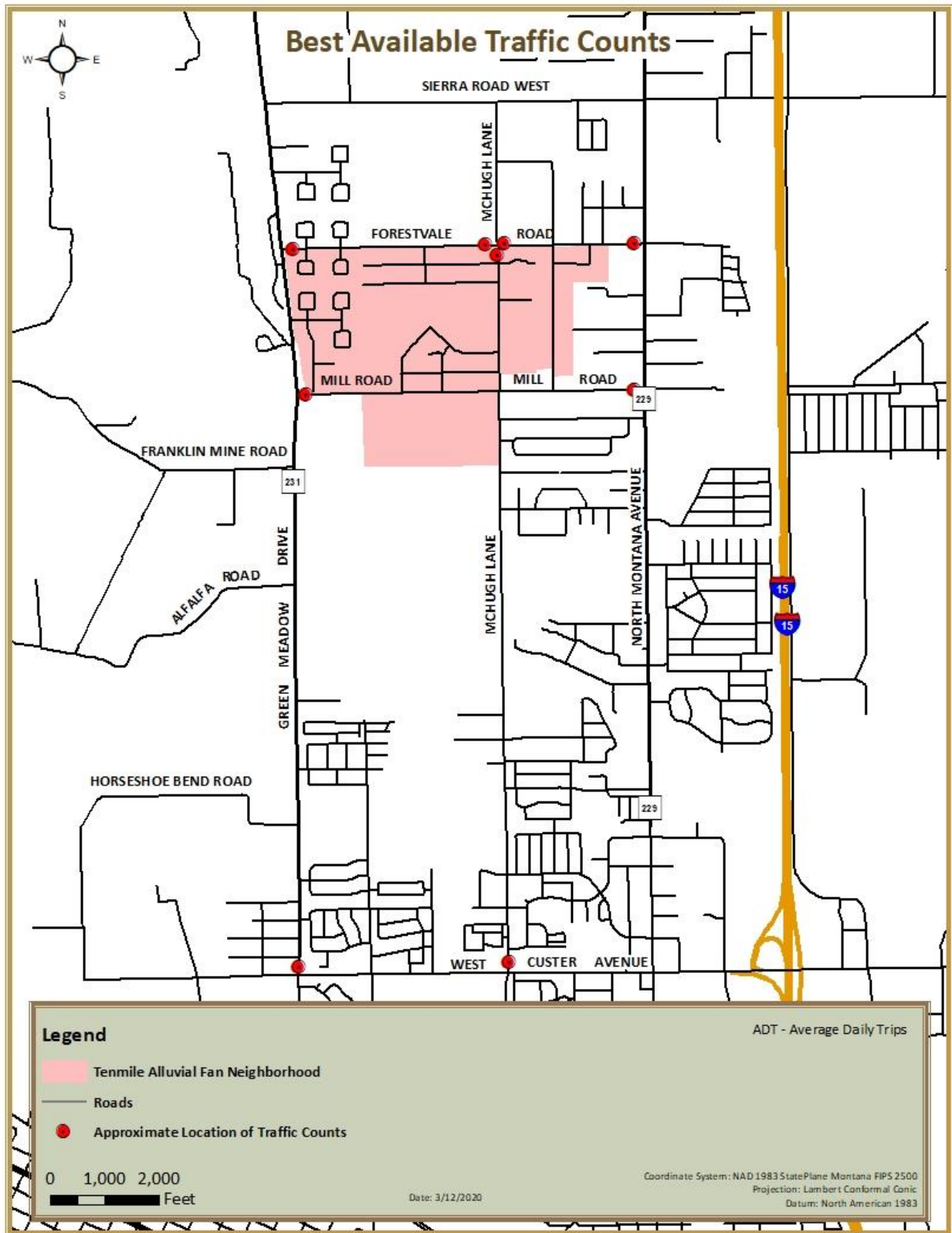


Figure 14: Location of Traffic Counts on Travel Routes to and within the Neighborhood

Road Classifications

Roads within and adjacent to the neighborhood have been assigned road classifications based on the Lewis and Clark County Road Standards and the Greater Helena Area Long Range Transportation Plan. The primary access roads with the heaviest traffic have been classified as either arterials or collectors with vehicle trips greater than 3,500 Annual Average Daily Traffic (AADT). AADT estimates are the mean traffic volume across all days for a year for a given location along a roadway. AADT is different from ADT because it represents data for the entire year. These roads include:

- Green Meadow Drive (asphalt surfaced - minor arterial),
- McHugh Lane (asphalt surfaced - major collector),
- Forestvale Road (asphalt surfaced - major collector), and
- Mill Road (asphalt surfaced - major collector).

All other roads within the neighborhood are classified as local access roads with AADT's that likely range from less than 400 to up to 1,500. These roads include:

- Bonanza Court,
- Canyon Court,
- Crescent Moon Drive,
- Dimsdale Drive,
- Dutchman Drive,
- Edgerton Road,
- Hedge Drive,
- Kerr Drive,
- Rainier Road,
- Robin Drive,
- Ronda Road,
- Sahara Court,
- Scribner Road,
- Sewell Road, and
- Stadler Road.

Road Conditions and Maintenance

Generally, based on visual observation, the conditions of the roads within the neighborhood vary from potentially meeting standards to being substandard. If roads in the neighborhood meet standards, it means that they are built to Lewis and Clark County's road standards. Conversely, if a road does not meet standards, then it is not built to the County's road standards.

The following are descriptions of some of the road conditions in the neighborhood:

- Bonanza Court - Asphalt/chip-seal surfaced and appears to have a crown.
- Crescent Moon Drive - New asphalt/chip-seal surfaced and appears to have a crown.
- Dimsdale Drive - Asphalt/chip-seal surfaced and appears to have a crown.
- Dutchman Drive - Asphalt/chip-seal surfaced, appears to have a crown, but has potholes.
- Edgerton Road - Asphalt/chip-seal surfaced and appears to have a crown.

- Kerr Drive - Mix of old chip-seal surface and gravel, is rough and without a proper crown, and is full of potholes.
- Lynn Road - Gravel base, surface is rough and without a proper crown, and is full of shallow potholes.
- Rainier Road - Gravel base, surface is rough and without a proper crown, and is full of shallow potholes.
- Robin Drive - Old chip-seal surfaced, which is rough and has potholes.
- Ronda Road - Old chip-seal surfaced, which is rough and has potholes.
- Scribner Road - Asphalt/chip-seal surfaced, which appears to be crowned and in good shape.
- Sewell Road - Gravel base, surface appears good, but without a proper crown, and has some shallow potholes.
- Stadler Road - Asphalt/chip-seal surfaced, which appears to be crowned and in good shape.

Appendix A of this neighborhood plan contains photos of the road conditions at various road intersections within the neighborhood.

Maintenance of roads in the neighborhood and surrounding area is carried out by several different entities. Green Meadow Drive is maintained by the Montana Department of Transportation, while Lewis and Clark County is responsible for maintenance of the following roads:

- Forestvale Road,
- Mill Road,
- McHugh Lane,
- Rainier Road,
- Robin Drive,
- Ronda Road, and
- Sewell Road.

The roads in the Big Sky and South Forestvale No. 2 Subdivisions are maintained through the use of Rural Improvement Districts (RIDs). Each RID funds the maintenance of its roads through a special assessment on property taxes. Figure 15 shows the location of RIDs in an around the neighborhood. Maintenance of all other roads in the neighborhood is the responsibility of the individual property owners or existing homeowners' associations.

Water Supply

According to the staff at the Lewis and Clark Public Health – Environmental Services Division (Environmental Services), water is supplied to all of the residences in the neighborhood via groundwater wells. There are six community/public water systems in the neighborhood. These community systems provide water to Camel Mountain Park and the South Forestvale No. 2 Subdivisions in the northwest corner of the neighborhood. There is also a public water system at the eastern end of the neighborhood in the Stuart Subdivision. The remainder of homes in the neighborhood obtain water via individual groundwater wells. Figure 16 shows the location of groundwater wells in the neighborhood.

Wastewater Disposal

According to Environmental Services staff, wastewater treatment for a majority of the residences in the neighborhood is provided via individual, on-site wastewater treatment systems (septic-drainfield). There

are a few shared wastewater treatment systems in the neighborhood, but according to Environmental Services, these are small systems.

Water Quality Protection District

The neighborhood is located within the Lewis and Clark County Water Quality Protection District (WQPD). The WQPD's mission is to preserve, protect and improve water quality. It is funded through a special assessment on property taxes. The WQPD monitors water quality within the Helena Valley, and conducts education and outreach campaigns in order to promote behavior that protects water quality.

DRAFT

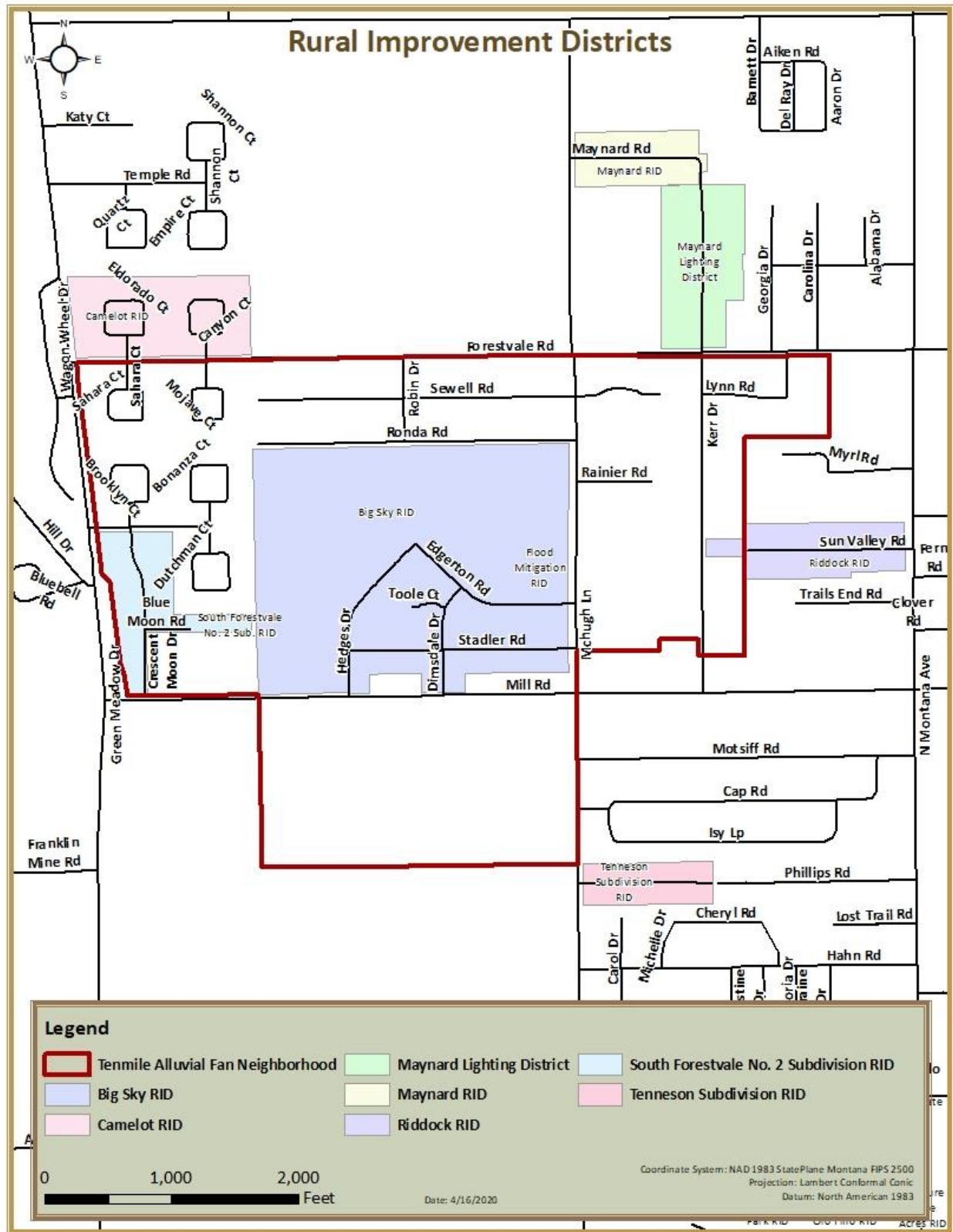


Figure 15: Rural Improvement Districts in and near the Neighborhood

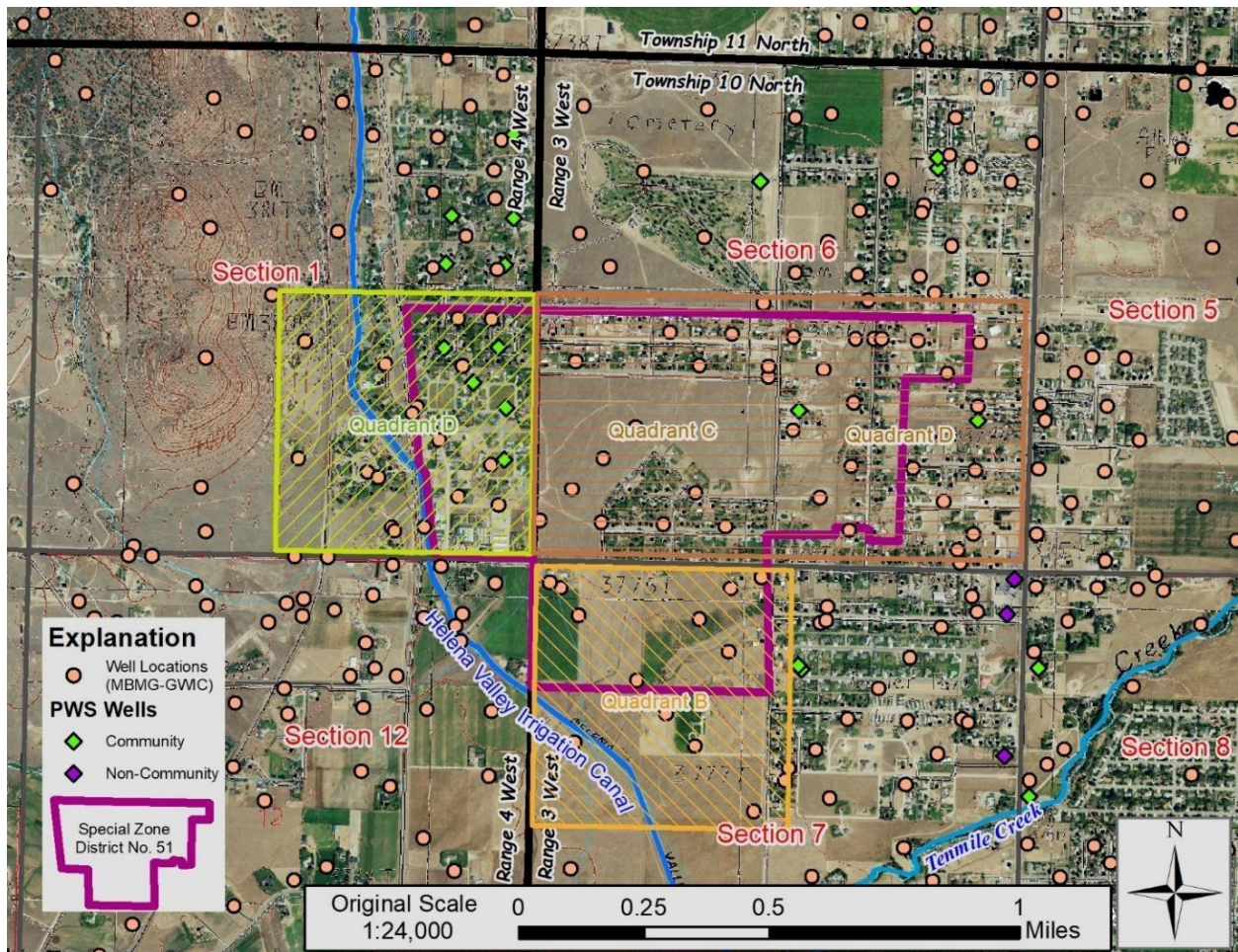


Figure 16: Location of Groundwater Wells in the Neighborhood and Surrounding Area

Utilities

The neighborhood is served by a mix of underground and overhead electrical service lines, supplied by Northwestern Energy. Natural Gas is also provided in this area. Telephone land line, cable, and satellite television service is available, as is cellular telephone service.

Emergency Services

Lewis and Clark County Disaster and Emergency Services has adopted a detailed County Emergency Operations Plan that manages responses to disaster events such as floods, wildland fires and earthquakes. The neighborhood is included within this disaster response plan.

Law Enforcement

The neighborhood is within the jurisdiction of the Lewis and Clark County Sheriff's Department.

Fire Protection

The neighborhood is located within the West Helena Valley Fire District. The nearest fire stations are Station No. 1 located on Forestvale Road near its intersection with North Montana Avenue, which is

approximately 130 feet east of the neighborhood, and Station No. 2 located at the intersection of Valley View Road and North Montana Avenue, approximately 4.5 road miles north of the neighborhood. The nearest water source is located near the intersection of Forestvale Road and Kerr Drive on property owned by the International Order of Odd Fellows (IOOF) Cemetery Association. This source is maintained by the West Helena Valley Fire District.

Medical Service

Medical services are provided primarily by St. Peters Hospital in Helena.

Education

The neighborhood lies within Helena School District No. 1. Rossiter School is the nearest elementary school to the neighborhood and is located approximately one road mile from the neighborhood. Middle school and high school age students attend school in Helena. A common planning assumption is that each single-family residence will have 1.5 school aged children (one elementary student per home and one middle or high school student for every two homes).

Agriculture

Based upon a site visit, there are a number of properties scattered throughout the neighborhood that are used for agricultural purposes, particularly for the keeping of saddle horses. There are also several properties in the southwestern portion of the neighborhood that appear to be used for irrigated pasture or growing grass hay.

As mentioned earlier, the Natural Resource and Conservation Services classifies two soils in the neighborhood as being either of statewide importance or as being prime farmland if irrigated. These are Assiniboine-Chinook (238B) and Thess-Loam (209A) respectively. See Figure 3 for the locations of these soils.

Lewis & Clark County does not have a local ordinance regarding the protection of farmland.

NEIGHBORHOOD LAND USE CHARACTERISTICS

Existing Land Use

Land uses in the neighborhood are a mix of residential, commercial, and agricultural/open space uses. Suburban types of residential development are located in the northwest and northern portion of the neighborhood, such as Camel Mountain, South Forestvale No. 2, and Sewell Tracts Subdivisions. The eastern portion of the neighborhood is a mix of residential and modular home uses such as the Stuart, Johns, and Hiltabrand Subdivisions. The central and far southern portion of the neighborhood is mainly comprised of agricultural and large lot residential uses with the exception of the Big Sky Subdivisions, which provide suburban-style residential housing in the central portion of the neighborhood.

Existing land use patterns within the neighborhood were mapped using information obtained from Montana Cadastral data provided by the Montana Department of Revenue (DOR). DOR categorizes the uses for each parcel in the neighborhood for tax purposes. The categorization is based on the land use

identified during DOR's most recent appraisal work for each parcel. According to DOR's data, there are six land uses present in the neighborhood:

- Urban Residential,
- Rural Residential,
- Rural Residential-Farmstead,
- Rural Apartment,
- Exempt/Non-Valued Property – Parkland, and
- Vacant Land.

Figure 17 shows the land uses within the neighborhood as determined by DOR.

Parcel Size

An evaluation of existing parcel sizes was completed using GIS mapping. There are two hundred and fifty-eight (258) parcels located within the neighborhood. These parcels range in size from under 10,000 square feet in size to over 40 acres in size. A majority of parcels in the neighborhood are between 20,000 square feet and 44,000 square feet in size. Figure 18 shows the parcel sizes in the neighborhood and surrounding area.

Housing

Based on site visits to the area and from information obtained from DOR, the predominant use of properties in the neighborhood is identified as residential or vacant/agricultural in nature. The Cadastral Data indicates that there are 242 dwelling units in the neighborhood, with almost all of those being single-family residential homes.

Population

According to the U.S. Decennial Census, the neighborhood is within Census Tracts 5.01 and 5.02 of Lewis and Clark County. In Census Tract 5.01, the average household size is 2.8 persons per household and the average density is 492.5 persons per square mile. In Census Tract 5.02, the average household size is 2.5 persons per household and the average density is 1385.9 persons per square mile. Using a household size of 2.8 and assuming that the use of the 242 dwelling units in the neighborhood is for single-family residential homes, the estimated population of the neighborhood is approximately 677 people.

Entitlements

Obtaining an "entitlement" is a process through which a real estate developer or landowner seeks the right to develop (or redevelop) a property by obtaining approval for a subdivision, design and/or use proposed. Upon securing an entitlement from the County, State or other entity, the developer or property owner is thus entitled to build what was proposed and approved.

Within the neighborhood, no new residential or commercial subdivisions have an entitlement. An application to develop a gravel pit within the neighborhood has been submitted to the Montana Department of Environmental Quality (DEQ) for review and approval. At the time the neighborhood plan was adopted, this application had been deemed **complete/incomplete** by DEQ.

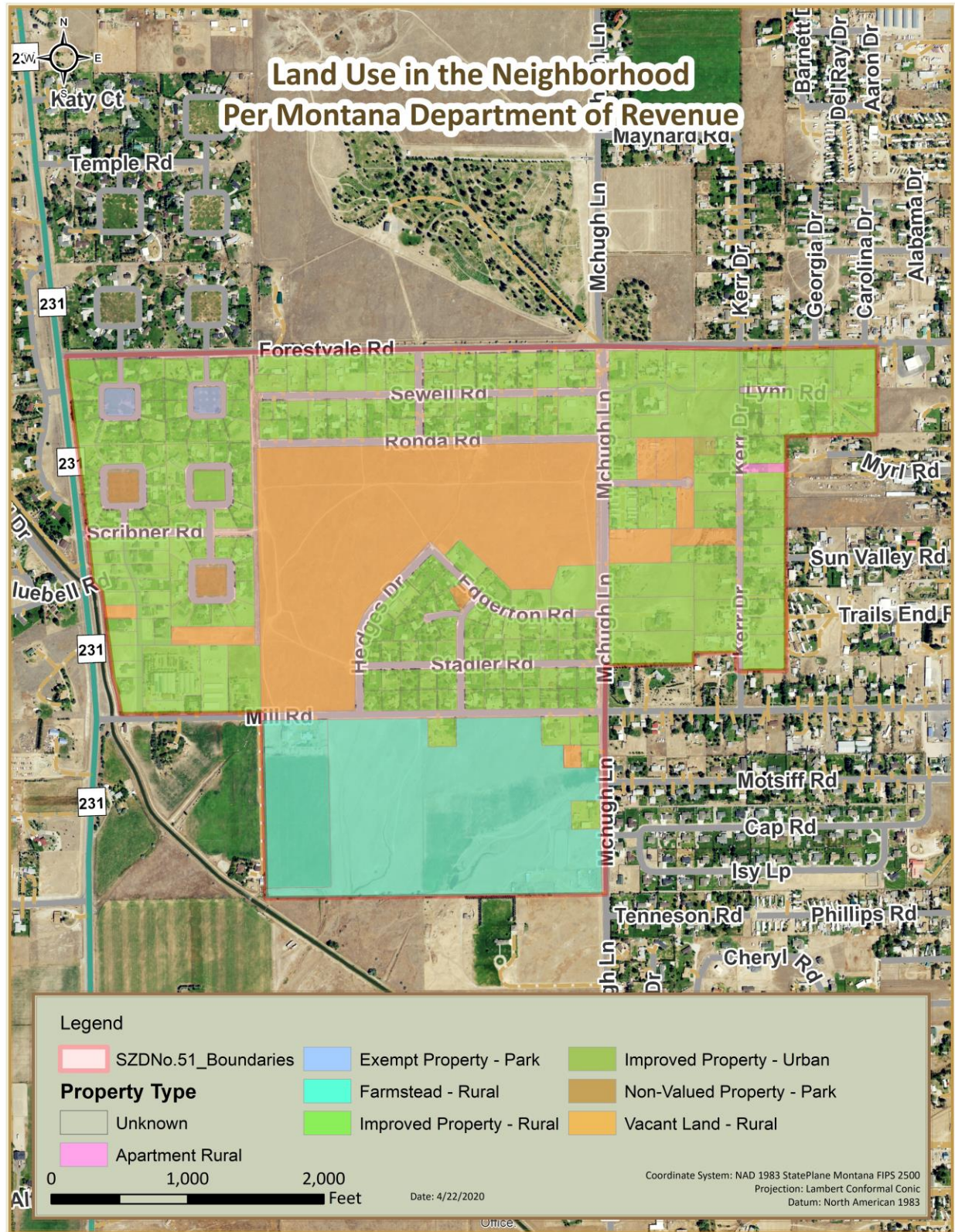


Figure 17: Existing Land Uses within the Neighborhood (MT Department of Revenue (DOR))

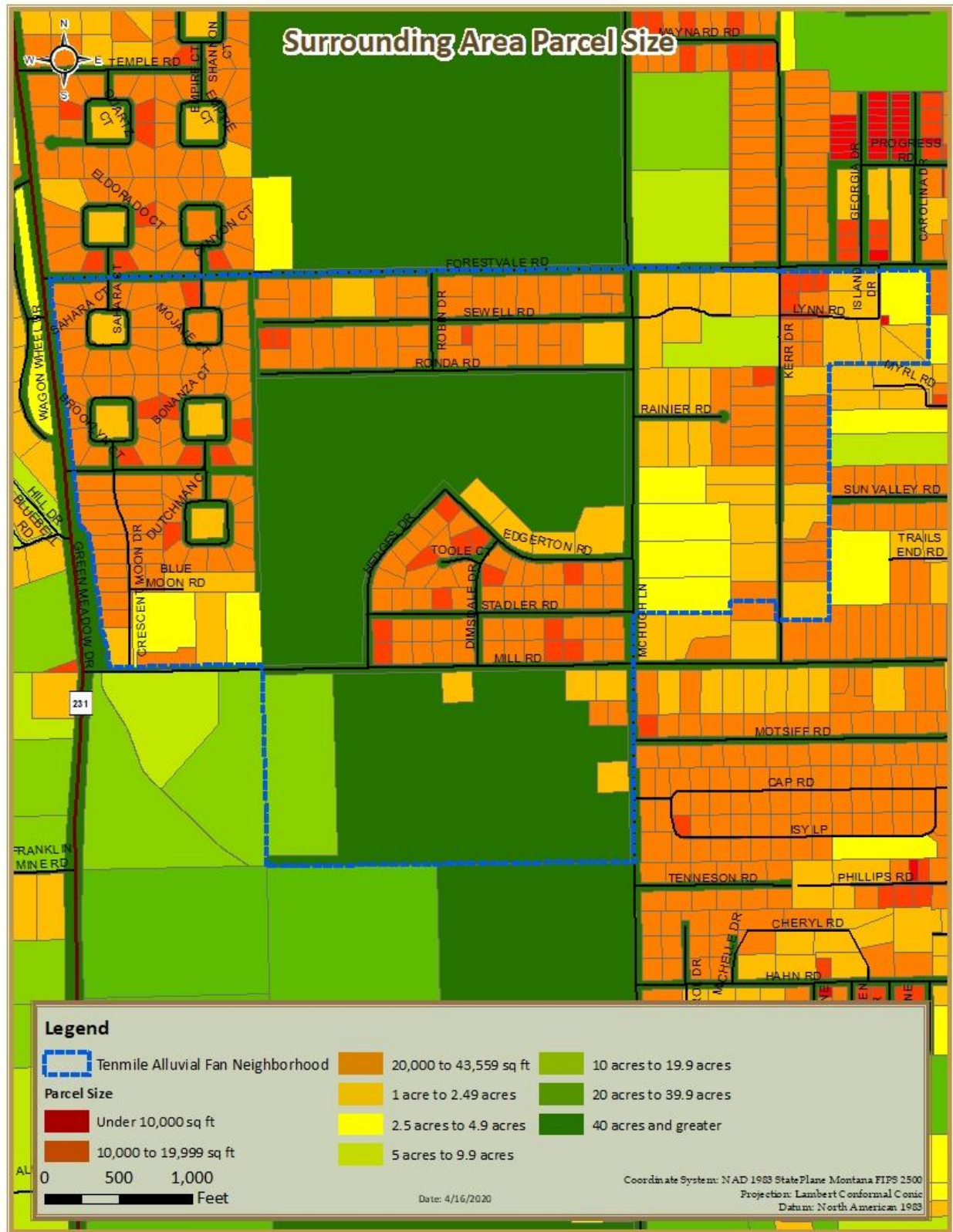


Figure 18: Parcel Sizes within and Surrounding the Neighborhood

Zoning

The land uses in the neighborhood are not currently regulated through zoning. A zone district boundary was created by the County Commissioners on January 7, 2020, but the next step in establishing zoning regulations for the boundary/neighborhood is the completion and adoption of this neighborhood plan/development pattern.

The plan/development pattern is based on the analysis of existing conditions found in the neighborhood, other research, recommendations of the Growth Policy, and public input as required under Sections 76-2-104 and 106, MCA. Upon adoption of this plan/development pattern by the Planning and Zoning Commission, resolution(s) for the creation of zoning and land use regulations to implement the recommendations of this plan/development pattern for the District will be prepared for consideration and adoption by the County Commissioners (Sections 76-2-107, MCA).

CHAPTER 2 – BUILDOUT ANALYSIS

Estimated growth projections allow an individual to understand what the future conditions in a specific neighborhood could look like based on a set of assumptions. There are a number of commonly accepted statistical methods used to project growth rates for larger populations; most using U.S. Census data. With smaller populations and smaller areas, the margin of error becomes very high using such data. In a neighborhood of this size, there are some real challenges and uncertainty in projecting future growth. In-lieu of statistical growth projections, three build-out analyses were developed to describe the possible growth within the neighborhood.

Build-out Analysis

The purpose of the build-out analysis is to develop a picture of the amount of residential development possible within the neighborhood and to understand potential impacts to resources, infrastructure, and services.

The buildout analyses were conducted for that portion of the neighborhood located in the Urban Growth Area (UGA) as identified in Volume 2 (Helena Valley Area Plan) of the County Growth Policy Update from 2015. The Growth Policy assumes new development within the UGA will be done at “urban” densities and be served by infrastructure such as centralized water and sewer systems and paved streets.

The buildout analyses were not conducted for that portion of the neighborhood located within the Transitional Growth Area (TGA) as identified in Volume 2 (Helena Valley Area Plan) of the County Growth Policy Update (2015). A majority of the properties in the neighborhood that are located within the TGA have been built-out with either residential or commercial development, therefore limiting the potential for any additional development.

Three scenarios were explored in this build-out analysis.

- The first scenario assumes a lot size of 1/4 acre for each new residence.
- The second scenario assumes 1.5-acre lots per residence, and
- The third scenario assumes 10-acre lots per residence.

The analyses were conducted using the following steps:

1. Identifying existing properties that may be developed with additional residential housing. Identification was done using 2017 aerial photography (most recent available).
2. Calculating the total acreage of the combined lots.
3. Calculating the total acreage of land located within the 100-year floodplain.
4. Removing the acreage of land located in the floodplain from the total acreage to estimate the available “buildable” acreage.
5. Calculating the “infrastructure” acreage of land needed for roads, rights-of-way, etc. for each scenario.
6. Removing the “infrastructure” acreage from “buildable” acreage to come up with a final acreage for each new residential lot.
7. The final acreage was divided by the lot size for each scenario to estimate the preliminary number of lots.

8. Existing residential structures were subtracted to provide a final number of lots that might be developed with a new home under each scenario.

Exclusion of the Floodplain Acreage

It is important to note that if the acreage that is located within the floodplain had been included in each buildout scenario, the number of lots that could be developed with a home would likely have been much greater. The floodplain acreage was not included because designing new residential development in relation to floodplains can be a very time consuming and expensive process, particularly from an engineering and surveying perspective.

First, all building sites would need to be located outside of the floodplain. Second, most, if not all, roads would need to be located outside of the floodplain. And third, if onsite septic systems are to be proposed for wastewater treatment, the drainfields and the replacement drainfields would need to be located a minimum of 100 feet from the edge of the floodplain. In addition, the floodplain located in the neighborhood is irregularly shaped and therefore introduces even more complexity for designing a residential development. Thus, with the complexity of the floodplain in mind, the buildout analyses purposely did not include the acreage that is located in the floodplain.

Scenario 1: ¼ Acre Lots (10,890 Square Feet)

This build-out scenario is based on the premise that the overall density of the neighborhood would be one residential dwelling unit per approximately ¼-acre lots at full build-out. One residential unit per ¼ acre was selected as a potential development pattern because the neighborhood lies within the UGA and a ¼ acre is the lowest recommended density for development in the UGA outside of any Special Flood Hazard Areas.

Under this scenario, the neighborhood would be divided into ¼-acre lots. Based on this density, it may be possible to develop 282 new lots. This density assumes the lots have urban services such as centralized water and sewer, fire hydrants, and paved streets that might include curbs, sidewalks, stormwater infrastructure and gutters.

Table 1 shows the potential impacts of the ¼-acre Lot Scenario.

Table 1: Potential impacts of full build-out with 1/4-acre lots

1/4-acre density scenario	Number of homes	Estimated AADT	Number of Wells & Septic Systems	School Aged Children
Potential Residential Lots	282	2,700	0	423

Scenario 2: 1.5-Acre Lots

The second build-out scenario is based on the premise that the overall density of the neighborhood under the development pattern for this area would be one residential dwelling unit per 1.5 acres at full build-out. Table 2 shows the potential impacts associated with a 1.5-acre Lot Scenario.

Table 2: Potential impacts of full build-out with 1.5-acre lots

1.5-acre density scenario	Number of homes	Estimated AADT	Number of Wells & Septic Systems	School Aged Children
Potential Residential Lots	40	380	40	60

The density analyzed in this scenario assumes the use of septic systems to treat wastewater effluent and individual water wells to provide water.

Scenario 3: 10-Acre Lots

The third build-out scenario is based on the premise that the overall density of the neighborhood under the development pattern for this area would be one residential dwelling unit per ten acres at full build-out, as petitioned by area residents and as recommended in the Helena Valley Area Plan for areas lying within the floodplain. Table 4 shows the potential impacts of the 10-acre Lot Scenario.

Table 3 - Potential impacts of full build-out with 10-acre lots

10-acre density scenario	Number of homes	Estimated AADT	Number of Wells & Septic Systems	School Aged Children
Potential Residential Lots	6	57	6	9

This density also assumes the use of septic systems to treat wastewater effluent and individual water wells to provide water.

Projected Impacts to Natural Resources and Infrastructure

Projected Impacts to Water Quantity and Quality

If new development within the neighborhood is done at an urban level of ¼ -acre or smaller lots, it will need to be served by centralized water and wastewater treatment systems and have paved streets and a formalized stormwater management system. Thus, this scenario should have a minimal impact upon water quantity and quality.

Under Scenarios 2 and 3, the number of homes using individual wells would increase within the neighborhood and some level of impact to existing water resources might occur. Based upon information provided by the Lewis and Clark County Water Quality Protection District (WQPD), it appears that water quantity would likely not be an issue with additional development in the neighborhood.

Under Scenarios 2 and 3, there may be impacts to water quality in the neighborhood. The soils within the neighborhood are not the best soils for the operation of individual septic systems, but in general, sand-lining and pressure-dosed distribution systems are all that is needed to ensure adequate treatment of wastewater effluent. The east edge of the neighborhood does have some shallower depths to groundwater, but nothing has been found to be less than four feet from the ground surface. Groundwater depths less than four feet would preclude the use of on-site septic systems.

Projected Impacts to Schools

At full build-out under the highest density scenario of ¼-acre lots, there could be an additional 423 school-aged children within the neighborhood, which may require adjustments to bus routes. Helena School District No. 1 is currently in a long-range planning process to develop a facilities plan to accommodate projected demographic changes to the school-age population.

Projected Impacts to Roads

To measure the potential impacts of new development in the neighborhood to roads, some assumptions must be made regarding how the roads will be used, particularly to travel to the City of Helena. Traffic is assumed to follow the shortest routes to North Montana Avenue, McHugh Lane, and Green Meadow Drive. The vast majority of trips are expected to use Green Meadow Drive and McHugh Lane to access Custer Avenue and the City. The Lewis and Clark County Subdivision Regulations assume each existing single-family home generates 9.52 Average Annual Daily Trips (AADT). Thus, under the ¼-acre build-out scenario, new residential development would add almost 2,700 AADT to the main road network.

The Lewis and Clark County Subdivision Regulations require subdividers to mitigate impacts to existing roads through a proportional share analysis based on court decisions that limit the authority of the County to require off-site road improvements. If a subdivision is proposed on a road that is built to appropriate design standards and can accommodate both the existing and additional traffic, no off-site road improvements are required.

If a subdivision is proposed on a road that is not built to the standard required for the volume of traffic it will carry, the proportional share analysis applies. The analysis measures the proposed subdivision's impact to a roadway based on the existing and projected AADT. Through a formula, the analysis produces a percentage of impact, and this number represents the percent of the cost the subdivider must pay to bring the road up to County standards. The formula is:

$$P / (P+E) * 100 = I$$

Where:

P = The projected AADT generated from the subdivision

E = The existing AADT on the roadway

I = The percentage of impact

When conducting this analysis, the impact for each segment of the road in and out of the area must be calculated. Through the proportional share analysis, people subdividing property would be responsible for a portion of the incremental costs of upgrading roads based on the proportion of traffic their subdivision is projected to generate above current levels.

The system currently in place for requiring those developing land through subdivision is based on the assumption that every road where a subdivision is proposed will eventually be improved to a new County Road construction standard. The 2014 Greater Helena Area Long Range Transportation Plan (LRTP) contains estimates for how much it will cost to address safety and capacity issues for the County Road Network, the regional roads that are the responsibility of the County, as opposed to the State of Montana or the cities of Helena and East Helena.

Language in the 2014 Greater Helena Area LRTP has acknowledged the lack of funding for upgrading and maintaining the County Road Network:

“It is very clear that the transportation system needs in the LRTP neighborhood are grossly underfunded. Two categories of projects were developed to classify major transportation network needs. The MSN [Major System Network] projects are those projects that are currently within the County’s jurisdictional authority and clearly will need improvement just to mitigate existing impacts. Roadways such as Country Club Avenue, Williams Street, Lincoln Road, etc., will need modifications and will hopefully be candidates for traditional funding sources available for transportation projects.

The CRN [County Road Network] projects, however, are those that are lower volume, more local in nature with limited funding and may therefore require innovative funding strategies (such as bonding programs, special assessments, etc.). This latter concept is currently being explored in the Lewis and Clark County Growth Policy Update, along with other potential policies to better manage growth.”

The 2014 Greater Helena LRTP estimates the unfunded liability for improving the Major System Network of roads to address past traffic increases and to accommodate future growth in the Helena Valley at \$178 million. The Plan estimates the unfunded liability of the County Road Network at \$77 million. These “grossly underfunded” transportation needs require that different approaches to growth management be explored that limit growth in traffic on substandard roads in the Helena Valley.

Projected Impacts to Fire Protection Resources

As densities within the neighborhood increase, the ability of fire services to protect property becomes more complicated. The primary concern is water availability. The Lewis and Clark County Subdivision Regulations require that new subdivisions consider the impacts to fire services, and sometimes require water supply such as storage tanks or wells to dedicate as fire service equipment. From Appendix K of the Subdivision Regulations:

Fire protection options for new subdivisions are grouped into two categories, Class I and Class II. Each of these has a variety of options regarding water supply the applicant may select from to meet the minimum requirements. The determination of whether Class I or II requirements apply is based on density, the number of lots created in the final plat, and whether or not the development is set back at least 15 feet from all property lines. In the event that the property is located in a zoning district that requires a setback of greater than 15 feet, the larger setback shall apply.

Any new subdivisions within the neighborhood would need to include a fire protection water supply system on-site, but may be able to utilize an off-site system if the proposed or existing off-site system meets the requirements of the County Subdivision Regulations and is approved by the Board of County Commissioners. The fire protection water supply requirements will be dependent upon the density of the proposed subdivision.

For lots sized ¼-acre or smaller in size, it is assumed that fire protection water supplies would be provided via fire hydrants served by a centralized water system similar to what would be found in the City of Helena.

Under the current County Subdivision Regulations, any subdivision containing residential lots ¼-acre to ½-acre in size would have to provide 1,000 gallons of water per minute for two hours per residential lot and have fire hydrants located 1000 feet apart. The water supply requirements for subdivisions with larger residential lots become less as lot densities decrease.

The nearest water source is located near the intersection of Forestvale Road and Kerr Drive on property owned by the International Order of Odd Fellows (IOOF) Cemetery Association. This source is maintained by the West Helena Valley Fire District.

DRAFT

CHAPTER 3 – CONSISTENCY WITH GROWTH POLICY

According to the Montana Code Annotated 76-1-601(4)(a), neighborhood plans must be consistent with the County Growth Policy. The first step to ensure a neighborhood plan is consistent is to review the Growth Policy to identify the important issues relevant to the neighborhood based on existing conditions.

On March 3, 2016, the Board of County Commissioners adopted an update to the 2004 County Growth Policy. That update consisted of two volumes. Volume 1 is the *Key Issues Report*. The *Key Issues Report* identified five constraints to development in the Helena Valley:

1. Availability of water,
2. Wastewater disposal limitations,
3. Road conditions,
4. Rural fire protection systems, and
5. Flooding.

Of these five constraints, one is a potential limitation that may be addressed in the neighborhood plan for the Tenmile Alluvial Fan neighborhood and subsequent regulatory programs to implement that plan. This constraint is flooding.

Volume 2 of the 2015 Growth Policy update was the *Helena Valley Area Plan*, which contains the policy recommendations to address this constraint to development. The Helena Valley Area Plan sets out three growth management areas as presented in Figure 19.

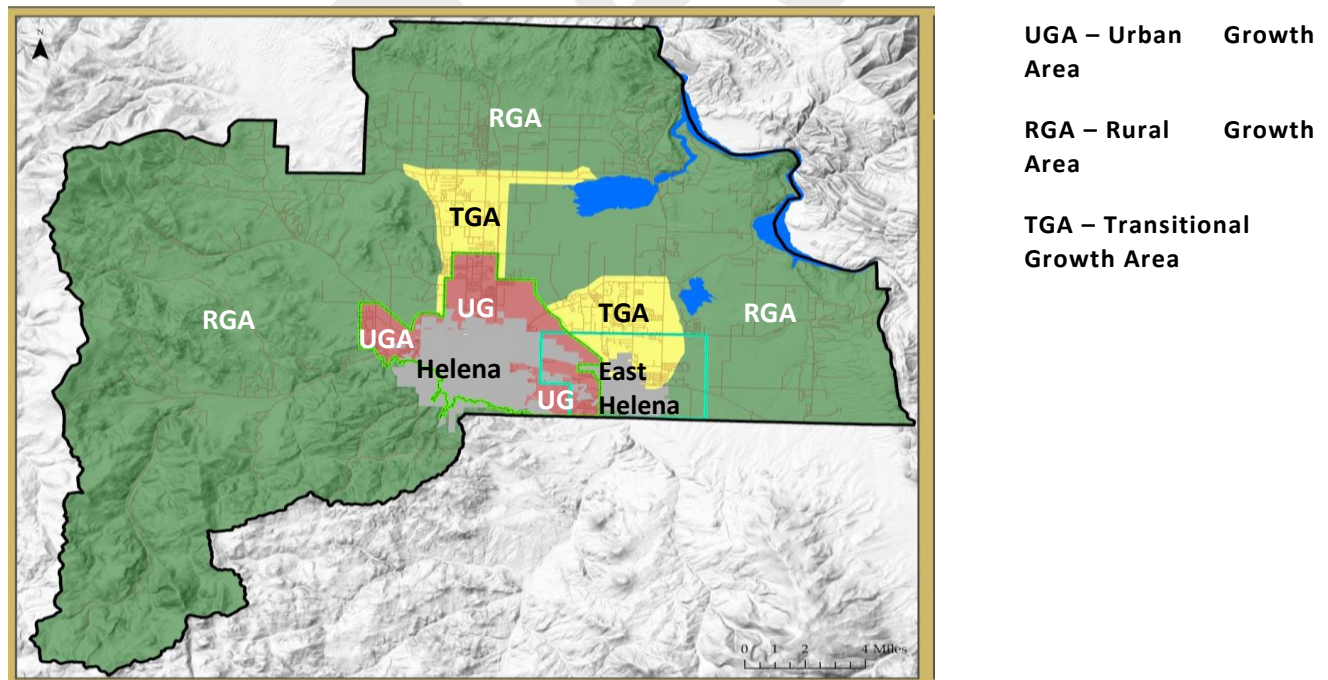


Figure 19: Helena Valley Area Plan Growth Management Areas

The lands located within the Tenmile Alluvial Fan neighborhood are located in either an Urban Growth Area or a Transitional Growth Area.

Urban Growth Area Goals

The goals for Urban Growth Areas are as follows:

1. Create an orderly and efficient land use pattern that facilitates the cost-effective expansion of public utilities in the Urban Growth Area.
2. Provide incentives for development at urban densities in the Urban Growth Area through public-private partnerships and streamlined development reviews.
3. Coordinate growth management strategies for the Urban Growth Area with the City of Helena.
4. Address any constraints to development present in the Urban Growth Area through zoning and other mechanisms.

The specific policy recommendations to accomplish these goals are provided in tables in Chapter 6 of the *Helena Valley Area Plan*:

Urban Growth Area Infrastructure Improvements Actions

Policy 1.1—Prepare an infrastructure plan meeting requirements of 76-1-601 (4)(c).

Policy 1.2—Conduct an analysis of potential adverse impacts on resources and services in the Urban Standards Boundary and potential mechanisms to mitigate those impacts.

Policy 1.3— Prepare and adopt amendments to the County Growth Policy and Helena Valley Area Plan to incorporate the infrastructure plan and the plan for mitigation of adverse impacts on resources and services.

Policy 1.4— Create a water and sewer district to serve the Urban Growth Area.

Policy 1.5— Require a waiver of right to protest annexation as a condition of service connection.

Policy 1.6- Require a waiver of right to protest annexation as a condition of subdivision approval.

Policy 1.7- Pursue public-private partnerships between developers, the County, the City, and existing neighborhoods to share the costs of utility extensions.

Policy 2.1- Establish the Urban Growth Area as the top priority for funding any road or other transportation improvements and partner with the City and State to facilitate those improvements.

Policy 2.2- Eliminate or substantially modify the proportional share analysis and system of exactions for off-site traffic improvements.

Policy 3.1- Work with the City of Helena, developers, and existing neighborhoods to extend public water services for fire protection throughout the Urban Growth Area through the infrastructure plan.

Policy 3.2- Require all project utilities in the Urban Growth Area to meet the public water system design standards of the City of Helena for fire protection services.

Policy 4.1- Implement the recommendations of the Valley Flood Mitigation Master Plan.

Urban Growth Area Density Controls

Policy 1.1— Adopt zoning that matches to the greatest extent possible adjacent zoning in the City of Helena and that follows their Growth Policy recommendations for the Urban Standards Boundary.

Policy 1.2— Adopt zoning for the Ten Mile Creek floodplain that addresses the development constraint of flooding in that area.

Urban Growth Area Improved Performance Standards

Policy 1.1— Adopt engineering and design standards for urban development that closely match requirements of the City of Helena for similar development.

Policy 1.2— Adopt additional zoning and design standards identified in the study of impact mitigation for expedited subdivision review.

Policy 1.3— Evaluate the need to establish a building permit system.

Policy 1.4— Overhaul the existing Part 1 zoning districts to make them consistent with the Growth Policy and efficient to administer, and/or convert them to Part 2 zoning.

Urban Growth Area Education and Outreach

Policy 1.1— Conduct an analysis of potential adverse impacts on resources and services in the Urban Standards Boundary and potential mechanisms to mitigate those impacts.

Policy 1.2— Develop a stormwater management plan for Helena Valley.

Policy 2.1— Seek input and guidance from City officials on preparing the infrastructure plan.

Policy 2.2— Seek input and guidance from City officials on preparing zoning and design standards that are consistent with Helena's regulations.

Policy 2.3— Conduct joint City and County staff reviews of all development projects within the Urban Growth Area/Urban Standards Boundary.

Policy 3.1— Work with HBIA, HAR, the Chamber of Commerce and other real estate and development organizations.

Policy 3.2— Work with the Valley Flood Committee, DNRC, and FEMA.

The neighborhood plan and zoning regulations adopted for the Tenmile Alluvial Fan Neighborhood must be consistent with these policies.

Transitional Growth Area Goals

The goals for Transitional Growth Areas are as follows:

1. Provide general suburban density that responds to the development constraints.
2. Limit development density on poor quality roads and in floodplains.
3. Adopt design standards that match the density of development.
4. Develop public-private partnerships to improve roads and fire protection.
5. Provide flexibility with Planned Unit Developments that address the development constraints.

The specific policy recommendations to accomplish these goals are provided in tables in Chapter 6 of the *Helena Valley Area Plan*:

Transitional Growth Area Infrastructure Improvements

Policy 1.1— Develop a set of rural road standards and road improvement requirements.

Policy 1.2— Develop a new set of suburban and urban road standards and road improvement requirements.

Policy 1.3— Develop public-private partnerships to improve TGA roads.

Policy 2.1— Develop a plan for regional water sources for fire protection.

Policy 2.2— Develop public-private partnerships to develop regional water sources for fire protection.

Transitional Growth Area Density Controls

Policy 1.1— Adopt zoning that limits development density and has some land use controls.

Policy 1.2— Adopt overlay zoning with larger minimum lot sizes in floodplain areas.

Transitional Growth Area Improved Performance Standards

Policy 1.1— Adopt and apply rural road design standards.

Policy 1.2— Drop or substantially modify the requirement for traffic impact studies and proportional share calculations for rural density subdivisions.

Policy 1.3— Adopt rural fire protection standards for low-density development.

Policy 2.1— Provide for Planned Unit Development (PUD) approvals that combine master plan, rezoning, and subdivision approvals in a simultaneous approval process for projects that address the development constraints of road conditions and rural fire protection.

Policy 2.2— Retain the policy of requiring on-site water sources for fire protection but improve the reliability and performance of such systems.

Policy 3.1— Require urban street standards for high-density subdivisions.

Policy 3.2— Improve the monitoring, maintenance, and enforcement of wastewater treatment rules for large non-municipal systems.

Policy 3.3— Require water sources for high-density urban developments in Transitional Growth Areas to meet similar hydrant and flow rates as urban development in the UGA and/or protect such development through a combination of fire prevention/protection measures.

Policy 4.1— Overhaul the existing Part 1 zoning districts to make them consistent with the Growth Policy and efficient to administer, and/or convert them to Part 2 zoning.

Transitional Growth Area Education and Outreach

Policy 1.1— Conduct research on new road standards for rural, suburban, and urban development and for upgrades to existing roads that access new development.

Policy 1.2— Continue research on rising levels of groundwater contaminants to identify sources and mitigation measures.

Policy 1.3— Explore options for better management of large community wastewater systems.

Policy 2.1— Work with the Lewis and Clark Rural Fire Council to integrate the growth management program with regional fire protection efforts.

Policy 3.1— Work with HBIA, HAR, the Chamber of Commerce and other real estate and development organizations.

The neighborhood plan and zoning regulations adopted for the Tenmile Alluvial Fan Neighborhood must be consistent with these policies.

CHAPTER 4 – PUBLIC INPUT

Statement of Intent for the Tenmile Alluvial Fan [Special Zoning District No. 51] Neighborhood

Proposed Statement of Intent: The purposes of this District are meant to be consistent with the Tenmile Alluvial Fan Neighborhood Plan and Development Pattern, and the policy recommendations of the Lewis and Clark Growth Policy and the Helena Valley Area Plan. Additionally, these regulations are intended to: accommodate and protect the mixed-use of high density, single-family dwelling units, along with low-density, single-family dwelling units and associated agricultural land uses; preserve the rural-residential, mixed-use character of the area; enhance the aesthetic character of the area; protect public health, safety, and welfare of residents; and protect property values of the area residents.

CHAPTER 5 – GOALS FOR A DEVELOPMENT PATTERN

UGA Infrastructure Improvement Policy 1.1—Prepare an infrastructure plan meeting the requirements of 76-1-601 (4) (c) MCA.

The Montana Subdivision and Platting Act and the State’s growth management statutes provide a major incentive for counties and cities to proactively plan and manage growth in areas like the Helena Urban Standards Boundary. Title 76-1-601(4) (c) provides the option for counties and cities to prepare infrastructure plans for the areas where infrastructure is to be extended:

(4) A growth policy may:

(c) establish an infrastructure plan that, at a minimum, includes:

(i) projections, in maps and text, of the jurisdiction's growth in population and number of residential, commercial, and industrial units over the next 20 years;

(iii) for a county, a plan of how the county will coordinate infrastructure planning with each of the cities that project growth outside of city boundaries and into the county's jurisdictional area over the next 20 years;

(v) for cities and counties, a land use map that designates infrastructure neighborhoods adjacent to cities showing where projected growth will be guided and at what densities;

(vi) using maps and text, a description of existing and future public facilities necessary to efficiently serve projected development and densities within infrastructure neighborhoods, including, whenever feasible, extending interconnected municipal street networks, sidewalks, trail systems, public transit facilities, and other municipal public facilities throughout the infrastructure neighborhood. For the purposes of this subsection (4)(c)(vi), public facilities include but are not limited to drinking water treatment and distribution facilities, sewer systems, wastewater treatment facilities, solid waste disposal facilities, parks and open space, schools, public access areas, roads, highways, bridges, and facilities for fire protection, law enforcement, and emergency services;

For counties that adopt such infrastructure plans, subdivisions within those infrastructure neighborhoods can be exempted from certain review requirements under the provisions of 76-3-616:

76-3-616. Exemption for certain subdivisions.

(1) A subdivision that meets the criteria in subsection (2) is exempt from the following requirements:

(a) preparation of an environmental assessment as required by 76-3-603;

(b) a public hearing on the subdivision application pursuant to 76-3-605; and

(c) review of the subdivision for the criteria listed in 76-3-608(3)(a).

(2) To qualify for the exemptions in subsection (1), a subdivision must meet the following criteria:

(a) the proposed subdivision is entirely within an area inside or adjacent to an incorporated city or town where the governing body has adopted a growth policy that includes the provisions of 76-1-601(4)(c);

(b) the proposed subdivision is entirely within an area subject to zoning adopted pursuant to 76-2-203 or 76-2-304 that avoids, significantly reduces, or mitigates adverse impacts identified in a growth policy that includes the provisions of 76-1-601(4)(c); and

(c) the subdivision proposal includes a description of future public facilities and services, using maps and text, that are necessary to efficiently serve the projected development.

As has been discussed in prior chapters of this Helena Valley Area Plan, the proposed new approach to growth management is to better mitigate the impacts of new development by using tools other than the

Subdivision Regulations. These two statutes in tandem provide a mechanism for expedited reviews of subdivision projects that are provided with urban infrastructure and are designed to urban standards. Using these growth management tools in the Urban Growth Area will reduce the amount of time and the costs of obtaining development approvals.

UGA Infrastructure Improvement Policy 1.2—Conduct an analysis of potential adverse impacts on resources and services in the Urban Standards Boundary and potential mechanisms to mitigate those impacts.

In addition to the statutory requirements to prepare an infrastructure plan to be eligible for subdivision review exemptions under proposed UGA Infrastructure Policy 1.1, the Growth Policy must also include a review of potential adverse impacts of the infrastructure plan on resources and services within the neighborhood:

- (viii) a description of how and where projected development inside municipal boundaries for cities and inside designated joint infrastructure neighborhoods for cities and counties could adversely impact:*
 - (A) threatened or endangered wildlife and critical wildlife habitat and corridors;*
 - (B) water available to agricultural water users and facilities;*
 - (C) the ability of public facilities, including schools, to safely and efficiently service current residents and future growth;*
 - (D) a local government's ability to provide adequate local services, including but not limited to emergency, fire, and police protection;*
 - (E) the safety of people and property due to threats to public health and safety, including but not limited to wildfire, flooding, erosion, water pollution, hazardous wildlife interactions, and traffic hazards;*
 - (F) natural resources, including but not limited to forest lands, mineral resources, sand and gravel resources, streams, rivers, lakes, wetlands, and ground water; and*
 - (G) agricultural lands and agricultural production; and*
- (ix) a description of measures, including land use management techniques and incentives, that will be adopted to avoid, significantly reduce, or mitigate the adverse impacts identified under subsection (4)(c)(viii).*

UGA Infrastructure Improvement Policy 1.3—Prepare and adopt amendments to the County Growth Policy and Helena Valley Area Plan to incorporate the infrastructure plan and the plan for mitigation of adverse impacts on resources and services.

The preparation of an infrastructure master plan (UGA Infrastructure Policy 1.1) and identification of adverse impacts mitigation measures (UGA Infrastructure Policy 1.2) should logically be considered as implementation steps after adoption of a Growth Policy direction, as they involve considerable time, effort, and expense comparable to the development of the long-range plan itself and should only be undertaken after the policy direction is set. Given that the growth management statute indicates that these components can and must be part of the Growth Policy, however, to ensure the validity of policies, programs, and regulations that will be adopted to pursue the Urban Growth Area goals, the results of these planning efforts should be officially adopted as subsequent amendments to the Growth Policy and Helena Valley Area Plan once they are prepared.

UGA Infrastructure Improvement Policy 1.4—Create a water and sewer district to serve the Urban Growth Area.

Once the infrastructure master plan and the mitigation measures are identified, the County should create a water and sewer district to serve the portion of the Urban Growth Areas where development would not likely be annexed in the short term. Through inter-local agreements with the City of Helena, the water and sewer district would reserve capacity of the City's water supply and at the wastewater treatment plant. The district would develop, own, and maintain the delivery systems beyond the city limits until such time as annexation occurs and the systems can be turned over to the City.

UGA Infrastructure Improvement Policy 1.5—Require a waiver of right to protest annexation as a condition of service connection.

All new or existing development connecting to the water and sewer district should be required as a condition of service to waive their right to protest annexation in return for accessing the City's water and sewer capacity.

UGA Infrastructure Improvement Policy 1.6—Require a waiver of right to protest annexation as a condition of subdivision approval.

In return for using the City's capacity, the County should require a waiver of the right to protest annexation as a condition of subdivision approval. New development should connect to the water and sewer district or annex, where feasible. Where not feasible, all new water and sewer systems should be built to the City of Helena's standards and should be designed to connect to the district's system or to the City's system at some point in the future.

UGA Infrastructure Improvement Policy 1.7—Pursue public-private partnerships between developers, the County, the City, and existing neighborhoods to share the costs of utility extensions.

The water and sewer district should develop public-private partnerships in order to finance infrastructure. As development occurs, the district and private developers should jointly fund the extension of the delivery service. Users should be charged a fee to help recoup costs of the infrastructure over time, for maintenance of the delivery system, and for use of the City's capacity. This system would spread the initial capital costs of infrastructure over multiple parties: the County water and sewer district, the developer, existing neighborhoods that tie in, and the City utilities. Over time, all costs would ultimately be paid by users of the utilities.

UGA Infrastructure Improvement Policy 2.1—Establish the Urban Growth Area as the top priority for funding any road or other transportation improvements and partner with the City and State to facilitate those improvements.

The Urban Growth Area should be considered County Road Network priority #1. This area should be the top priority for spending County funds on road improvements to bring the County Road Network up to acceptable standards and accommodate additional growth. The County's Capital Improvements Plan should reflect this priority. This system will target what limited public funds are available to improve roads to accommodate growth in the most appropriate locations for development, rather than following it around the Valley wherever it happens to occur through unplanned growth.

UGA Infrastructure Improvement Policy 2.2—Eliminate or substantially modify the proportional share analysis and system of exactions for off-site traffic improvements.

The proportional share analysis was adopted as a response to court decisions that prohibit the County from requiring developers to cover the full costs related to off-site road improvements on roads impacted by development projects. Given the higher traffic volumes existing and anticipated in the Urban Growth Area, the calculations of proportional project impacts even for large projects will be a small percentage of the road traffic and the total costs of rebuilding roads to meet full County standards. The marginal benefits of collecting and holding such funds for future road projects must be weighed against the opportunity costs of encouraging higher density development in the Urban Growth Area. Safety reviews will still be available to address needed traffic improvements that affect intersections. This mitigation mechanism combined with the proposed emphasis on infrastructure investment in the Urban Growth Area is a better plan for growth management than requiring developers to pay a proportional share of road improvements that are not part of the long-range plan.

UGA Infrastructure Improvement Policy 3.1—Work with the City of Helena, developers, and existing neighborhoods to extend public water services for fire protection throughout the Urban Growth Area.

Urban density development requires public water volumes and pressure to provide firefighters with water needed to effectively protect lives and property. The current policy of requiring on-site water storage tanks or ponds that supply water for two hours of firefighting is inadequate for the purposes of supporting high-density neighborhoods where the risk exposure is far higher than in rural, low-density locations. For public safety, as well as future annexations, water supplies meeting the City of Helena performance standards are needed throughout the Urban Growth Area. The goal will be to provide the needed water supplies through the infrastructure plan for the UGA.

UGA Infrastructure Improvement Policy 3.2—Require all project utilities in the Urban Growth Area to meet the public water system design standards of the City of Helena for Fire protection services.

The goal of the Future Land Use Plan is to facilitate high-density urban development within the Urban Growth Area. To accomplish that goal the County will prepare an infrastructure plan with mitigation mechanisms and will pursue public-private partnerships for extension of the utilities. These policies will be undermined unless the internal infrastructure within subdivisions is compatible with the City systems, including the requirements for public water system pipe sizing, flow rates, and hydrant locations.

UGA Infrastructure Improvement Policy 4.1—Implement the recommendations of the Valley Flood Mitigation Master Plan.

The area north of Ten Mile Creek in the Urban Standards Boundary Area B contains extensive flood plain. During larger flood events, water leaves the Ten Mile Creek channel and flows north through a series of large culverts under the Helena Valley Irrigation District Canal. Flood waters discharging from these culverts then flow along roads and through neighborhoods. Following a major flood event in 2011, the County prepared a Valley Flood Mitigation Master Plan that designed improvements to the ditching system of the roads and containment areas where flood waters can be stored and slowly released as flood waters abate. The County should continue to pursue implementation of the recommended improvements through a combination of public and private funding sources.

UGA Density Control Policy 1.1—Adopt zoning that matches to the greatest extent possible adjacent zoning in the City of Helena and that follows their Growth Policy recommendations for the Urban Standards Boundary.

To achieve a consistent and well-ordered land use pattern compatible with the City of Helena, the County needs to develop a zoning program for uses in and around the City that will easily accommodate the expansion of infrastructure throughout the Urban Growth Area.

In areas mixed with undeveloped and developed areas, zoning still needs to be compatible with the City of Helena. The County should facilitate and require densities that would use public sewer and water, not individual wells and septic systems. Bulk and dimensional requirements also need to be similar to requirements of the City of Helena. The target density should be a minimum of 4 units per acre for single-family residential uses and higher for multi-family units. Zoning in already developed areas, however, needs to consider the existing land use patterns and some compromises will need to be made.

UGA Density Control Policy 1.2—Adopt zoning for the Ten Mile Creek floodplain that addresses the development constraint of flooding in that area.

The City of Helena included the area north of Ten Mile Creek in its Urban Standards Boundary due to the existing high-density subdivisions that could request extension of public utilities to address service and water quality needs. The extension of those public utilities, however, would facilitate the construction of additional higher density subdivisions that would potentially exacerbate the flooding problems in those areas. Rather than relying exclusively on Federal and State flood regulations that were designed to mitigate flood damage to structures built in floodplains, it makes more sense to limit the density of development within floodplains to reduce the exposure to such risk. Going beyond the minimum flood regulations will have the added benefit of qualifying existing homeowners for reduced flood insurance premiums. The recommended density within floodplains should be comparable to that recommended for other areas with significant development constraints, which is a minimum lot size of ten acres.

UGA Performance Standards Policy 1.1—Adopt engineering and design standards for urban development that closely match requirements of the City of Helena for similar development.

Engineering requirements need to be consistent with the City of Helena's for:

- Road and sidewalk design,
- Water delivery,
- Wastewater transport and treatment,
- Stormwater transport, retention, and treatment,
- Commercial site design,
- High-density residential design,
- Landscaping,
- Lighting,
- Pedestrian and bicycle circulation, and,
- Fire protection.

UGA Performance Standards Policy 1.2—Adopt additional zoning and design standards identified in the study of impact mitigation for expedited subdivision review.

An infrastructure plan will be developed for the Urban Growth Area that will meet the requirements of 76-1-601 (C) (4) in order to provide for exemption of requirements for environmental assessments, public hearings, and review of impacts on resources and services identified in 76-3-608. To qualify for expedited reviews, however, an analysis will be necessary to identify proposed mechanisms to mitigate potential impacts on those resources and services. Those mechanisms will likely include zoning and design standards that may not be included in the current Helena regulations.

UGA Performance Standards Policy 1.3—Evaluate the need to establish a building permit system.

In addition to adopting performance standards appropriate for urban scale development and consistent with the City of Helena, enforcement of those standards will be necessary for the growth management goals to be achieved. The County will need an effective administrative system in place that may involve the issuance of County building or development permits, at least for the Urban Growth Area. Building codes may also be necessary to create enforceable fire protection mechanisms.

UGA Performance Standards Policy 1.4—Overhaul the existing Part 1 zoning districts to make them consistent with the Growth Policy and efficient to administer, and/or convert them to Part 2 zoning.

Numerous Part 1, citizen-initiated zoning districts have been established in the Helena Valley Neighborhood due to the lack of Part 2, county-initiated zoning. Under Montana law all zoning must be consistent with the Growth Policy and the existing districts should be reviewed for consistency with this Helena Valley Area Plan. Given the long-standing reliance on Part 1 zoning, some flexibility should be provided in the overhaul process.

UGA Education & Outreach Policy 1.1—Conduct an analysis of potential adverse impacts on resources and services in the Urban Standards Boundary and potential mechanisms to mitigate those impacts.

As discussed previously, in order for subdivisions to qualify for exemptions from components of the review process to expedite applications that meet the goals and design standards for urban development, an analysis of potential impacts on resources and services in the Urban Growth Area is required. In addition to the research needed to conduct the assessment and to identify mechanisms to mitigate impacts, public education and outreach will be needed to explain the basis for and benefits of this new approach to growth management.

UGA Education & Outreach Policy 1.2—Develop a stormwater management plan for Helena Valley.

In reaction to flooding in the Ten Mile Creek and Silver Creek watersheds in 2011, the County hired an engineering company to design drainage improvements for affected areas to reduce the impacts of such flooding. After decades of development that ignored the flooding constraints for development in these floodplains, the engineering design for improvements to mitigate drainage impacts will be extremely expensive and will have limited effectiveness. Rather than continuing the process of building subdivisions first and then worrying about flooding problems later, developing a comprehensive stormwater plan for Helena Valley will move the process from being reactive to proactive. In addition to preparing a more rational plan for flood controls in floodplain areas, the stormwater plan will have the

added benefit of helping the County ensure that high-density urban development throughout the Urban Growth Area is able to meet stormwater standards needed to satisfy State and federal permit requirements.

UGA Education & Outreach Policy 2.1—Seek input and guidance from City officials on preparing the infrastructure plan.

The City of Helena has invested hundreds of millions of dollars in building and maintaining its infrastructure systems. The City has prepared master plans for future water, wastewater, and stormwater facilities that include anticipated service needs of the Urban Standards Boundary. It has also done multiple engineering studies for extending that infrastructure to specific neighborhoods (e.g., Westside, North Montana Ave.). All of this research and knowledge will be critical to the success of County efforts to develop the proposed infrastructure plan for the Urban Growth Area.

UGA Education & Outreach Policy 2.2—Seek input and guidance from City officials on preparing zoning and design standards that are consistent with Helena's regulations.

As with the infrastructure planning, City staff are an important resource in developing County zoning for the Urban Growth Area and design standards that will be consistent with City development standards.

UGA Education & Outreach Policy 2.3—Conduct joint City and County staff reviews of all development projects within the Urban Growth Area/Urban Standards Boundary.

Closer coordination of planning functions within the Urban Growth Area is in the best interests of the City, County, developers, and the community at large. Although each agency has separate authority and responsibility, coordinating efforts for planning efforts and project reviews in the UGA/USB is clearly warranted and will multiply the resources available to both jurisdictions.

UGA Education & Outreach Policy 3.1—Work with HBIA, HAR, the Chamber of Commerce and other real estate and development organizations.

The Helena Building Industry Association and Helena Association of Realtors have been particularly active participants throughout the process to update the County Growth Policy and develop this Helena Valley Area Plan. In addition to offering their insights on the problems and solutions related to planning for and accommodating future employment and population growth in the Valley, these groups have extensive networks of contacts within the community and can help communicate the need for change and the direction the proposed changes are heading.

UGA Education & Outreach Policy 3.2—Work with the Valley Flood Committee, DNRC, and FEMA.

Similar to the input provided by HBIA and HAR on general development issues, the Valley Flood Committee has been instrumental in expanding the scope of the Helena Valley Area Plan to include the key issue of flooding in the Ten Mile Creek and Silver Creek floodplains. As the County moves forward with implementation of the Helena Valley Area Plan, the Flood Mitigation Master Plan, and with preparation of a stormwater plan for the larger Valley, this group of engaged citizens can assist in networking activities both within areas of particular concern to their members and with other parts of

the Valley that are affected by flooding. Close coordination with State and Federal agencies that administer flood programs will also be essential.

TGA Infrastructure Improvement Policy 1.0—Rural and Suburban Road Standards

The intent of the Transitional Growth Area is to allow a variation in development density based on the condition of the roads. In areas where the road conditions limit development densities, rural road standards will be applied, and the same types of road improvement programs being pursued in Rural Growth Areas will be available to landowners and developers.

Areas with better quality roads that allow higher density within the TGA will require suburban or even urban design based on those densities. Roads leading to subdivisions should be assessed against the new design standards as to their adequacy to support proposed development or the need for improvements to meet the new standards.

TGA Infrastructure Improvement Policy 1.1—Develop a set of rural road standards and road improvement requirements.

As stated in RGA Infrastructure Improvement Policy 1.1, if development density is limited, the need to upgrade roads to paved County standards is minimized. The road improvement design standards developed to address road improvements in the RGA should be available to apply to roads in the TGA that have density limitations.

TGA Infrastructure Improvement Policy 1.2—Develop a new set of suburban and urban road standards and road improvement requirements.

For those areas of the Transitional Growth Area where existing road conditions allow higher development densities, road standards should be increased to match the density of development that is proposed. Once again, cost-effective alternatives to full reconstruction of existing roads should be considered and allowed to achieve solutions that result in actual road improvements, as opposed to continuing the policy of collecting proportional shares for road improvements that may never happen. Existing roads would be improved to a standard based on ride quality, safety, and maintenance as advised by qualified engineers.

TGA Infrastructure Improvement Policy 1.3—Develop public-private partnerships to improve TGA roads.

The County policy on road maintenance is the same for the Transitional Growth Area as it is for the Rural Growth Area. All new subdivisions must form or join Rural Improvement Districts (RIDs) for permanent maintenance of roads within them. There are also existing roads that will provide access to subdivisions in the TGA that could benefit from improvements done through public-private partnerships involving developers, the County, and existing residents on those roads.

TGA Infrastructure Improvement Policy 2.1—Develop a plan for regional water sources for fire protection.

The need for a regional plan to develop strategically located water supply sources for fire protection is even greater in the Transitional Growth Area than in the Rural Growth due to the existing level of housing development and projected growth. Unlike the RGA, however, there will still be a need for on-site water supply systems in subdivisions with higher development densities. Because of the level and density of development anticipated, the County should eliminate the allowance for using off-site water supplies for fire protection for multiple subdivisions.

TGA Infrastructure Improvement Policy 2.2—Develop public-private partnerships to fund regional water sources for fire protection.

The suburban development densities anticipated and allowed in the Transitional Growth Area will require higher levels of water supplies for fire protection than rural, low-density areas. Therefore, it is likely that a larger number of regional facilities will be required as will the need for expanded capital to develop those facilities. Therefore, fire protection water sources should be handled in similar fashion to road improvements in the TGA, with public-private partnerships involving developers, the County, and Fire Districts.

TGA Density Control Policy 1.1—Adopt zoning that limits development density and has some land use controls.

As explained in Chapter 3, Powell County's zoning ordinance is primarily focused on density, and use is a secondary consideration. Under this model, each district describes a minimum lot size, permitted uses that don't require administrative review, permitted uses that do require administrative review, and conditional uses that are only allowed if they meet stated conditions of the ordinance for issues such as traffic safety and noise. The Powell County ordinance does not prohibit any uses; it requires that all uses not listed as permitted uses go through the conditional use permitting process. If the use can meet the conditional use standards, it is approved. If not, it is denied. Density limitations in the TGA will be based exclusively on the condition of the roads that serve properties to be developed. Properties served by gravel, chip-sealed, or paved roads rated as "failed" or "poor" under the County's PASER analysis in Chapter 7 of the 2014 Greater Helena Area Long Range Transportation should have a minimum lot size of 10 acres based on the road constraints. If roads are improved through implementation of the Long Range Transportation Plan or other funding mechanisms, those areas could be rezoned to allow higher densities. They could also be rezoned through a Planned Unit Development process. Since the density limitations in the TGA are anticipated to be temporary until road improvements occur, clustering with permanent preservation of open space would not be suitable. For areas not constrained by road conditions within the Transitional Growth Area, density should be determined based on minimum lot sizes allowed by the Department of Environmental Quality based on septic system and well requirements. This program anticipates a minimum lot size of approximately 1 acre for a single family lot with a private well and septic system, a minimum lot size of half an acre for projects that utilize either non-municipal water or wastewater treatment systems, and a minimum lot size of approximately a quarter acre for subdivisions that utilize both non-municipal water and wastewater treatment systems. The same densities would be allowed if public utility services are provided, although extensions of municipal utilities into the TGA is not anticipated under the Helena Valley Area Plan. As with urban areas, land within the road right-of-way should not be counted toward the minimum lot size in suburban sized lots (1 acre or less).

TGA Density Control Policy 1.2—Adopt overlay zoning with larger minimum lot sizes in floodplain areas.

As with the floodplain portions of the Urban Growth Area, portions of the Transitional Growth Area include floodplains of Ten Mile Creek, Silver Creek, and Prickly Pear Creek. Rather than relying exclusively on Federal and State flood regulations that were designed to mitigate flood damage to structures built in floodplains, it makes more sense to limit the density of development within floodplains to reduce the exposure to such risk. Going beyond the minimum flood regulations will have the added benefit of qualifying existing homeowners for reduced flood insurance premiums. The recommended density within floodplains should be comparable to that recommended for other areas with significant development constraints, which is a minimum lot size of ten acres.

TGA Performance Standards Policy 1.1—Adopt and apply rural road design standards.

The current road standards of the Subdivision Regulations assume that all development will be at suburban density. Thus, roads are over-built in rural areas and under-built in urban density neighborhoods. Road standards in other counties and road studies done in other states should be reviewed to develop workable, cost-effective solutions for rural development in the Helena Valley.

TGA Performance Standards Policy 1.2—Drop or substantially modify the requirement for traffic impact studies and proportional share calculations for rural density subdivisions.

As indicated in the Rural Growth Area recommendations, requiring expensive traffic impact studies and proportional share contributions for off-site road improvements makes it cost-prohibitive for small projects and does little to fix defective roads. Limiting density on such roads is a fairer and more effective solution.

TGA Performance Standards Policy 1.3— Adopt rural fire protection standards for low-density development.

As with low density development in the Rural Growth Area, low-density development in the TGA should provide alternative means of fire protection to the requirement for expensive, on-site water sources, including regional fire protection systems and enforceable vegetation management programs.

TGA Performance Standards Policy 2.1—Provide for Planned Unit Development (PUD) approvals that combine master plan, rezoning, and subdivision approvals in a simultaneous approval process for projects that address the development constraints of road conditions and rural fire protection.

This mechanism is provided in the Rural Growth Area to provide an expedited rezoning and subdivision approval process for developers who put together a master development plan that addresses the constraints to development. It would be available to developers in the Transitional Growth Area as well. The primary constraint needing to be addressed in such master development plans in the TGA will be road conditions, but fire protection should also be considered.

TGA Performance Standards Policy 2.2—Retain the policy of requiring on-site water sources for fire protection, but improve the reliability and performance of such systems.

The policy of allowing multiple subdivisions to use a single water supply source for fire protection facilitates the suburbanization process without the fire protection capacity needed to protect the growing population of the Helena Valley. Beyond the standard fire protection issues inherent in large-scale development, the Helena Valley is particularly at risk due to the potential for wildfire events that can start in high fuel hazard areas of the Wildland Urban Interface and spread throughout the Valley by windblown embers. In addition to developing regional fire protection water sources, improved performance standards can ensure that systems installed to serve suburban density development are reliable, effective, and inexpensive to maintain.

TGA Performance Standards Policy 3.1—Require urban street standards for high-density subdivisions.

As documented in the *Key Issues Report*, in high-density subdivisions narrow streets without parking lanes become blocked by on-street parking, preventing safe evacuation by occupants and safe access for firefighting. The allowance for open ditch drainage systems in such projects has resulted in drainage ditches being filled in to provide access for RV parking and to improve aesthetic appearances of front lawns. Eliminating ditches in open drainage stormwater systems removes storage capacity and causes localized flooding problems. Sidewalks should be required in such high-density projects to provide for pedestrian safety.

TGA Performance Standards Policy 3.2—Improve the monitoring, maintenance, and enforcement of wastewater treatment rules for large non-municipal systems.

Due to the track record of failure by homeowner associations to properly maintain roads in subdivisions, the County instituted the requirement for formation of a Rural Improvement District for road maintenance in all new subdivisions. Road functions and maintenance are simple in comparison to wastewater treatment systems that involve complex mechanical, chemical, and biological processes. And yet the responsibility for operation and maintenance of large non-municipal wastewater systems can currently be placed on homeowners. Although there are stringent standards for operation, maintenance, and testing of such systems under current DEQ rules, most enforcement happens on a complaint basis, long after malfunctions start. This is due to the non-visible components of wastewater systems and the lack of enforcement resources in the DEQ. Providing the County Environmental Health Division with on-going monitoring and inspection authority and resources would help ensure the proper operation and maintenance of such wastewater systems.

TGA Performance Standards Policy 3.3—Require water sources for high-density urban developments in the Transitional Growth Area to meet similar hydrant and flow rates as urban development in the UGA and/or protect such development through a combination of fire prevention/protection measures.

Allowing high-density urban development using rural fire protection standards increases risk to residents and fire-fighting personnel. All development built to urban density should have urban level services for fire protection. This can be accomplished through a combination of measures such as hydrant and building spacing, vegetation management, noncombustible building materials, and sprinkler systems. Such requirements can be legally enforceable if they follow statutory requirements and guidance of the Growth Policy and this Helena Valley Area Plan.

TGA Performance Standards Policy 4.1—Overhaul the existing Part 1 zoning districts to make them consistent with the Growth Policy and efficient to administer, and/or convert them to Part 2 zoning.

Numerous Part 1, citizen-initiated zoning districts have been established in the Helena Valley due to the lack of Part 2, county-initiated zoning. Under Montana law all zoning must be consistent with the Growth Policy and the existing districts should be reviewed for consistency with this Helena Valley Area Plan. Given the long-standing reliance on Part 1 zoning, some flexibility should be provided in the overhaul process.

TGA Education & Outreach Policy 1.1—Conduct research on new road standards for rural, suburban, and urban development and for upgrades to existing roads that access new development.

Current road design standards are based on suburban development needs and do not match needs for rural and urban development that could occur in the TGA. Current off-site road improvement requirements are cost prohibitive and ineffective. New cost-effective standards based on sound engineering that are legally defensible must be developed and implemented to manage future growth in the TGA.

TGA Education & Outreach Policy 1.2—Continue research on rising levels of groundwater contaminants to identify sources and mitigation measures.

On-going studies conducted by the County Water Quality Protection District have documented declining water tables and increasing levels of contaminants. That research has not conclusively determined causes and solutions to guide new policy on wastewater management in the Helena Valley. This research will increase in importance as the Valley continues to suburbanize in the TGA, which contain most areas with shallow groundwater.

TGA Education & Outreach Policy 1.3—Explore options for better management of large community wastewater systems.

Large community water and wastewater systems can be managed by private individuals, homeowner associations, Rural Improvement Districts, or Water & Sewer Districts. Monitoring of these systems that are major concerns for ground and surface water quality is inconsistent and enforcement is complaint based. More effective monitoring, management, and enforcement mechanisms are needed for this technology to continue to support major growth in the Helena Valley.

TGA Education & Outreach Policy 2.1—Work with the Tri-County FireSafe Working Group and its local affiliates to integrate the growth management program with regional fire protection efforts.

As indicated in Chapter 3, the Tri-County FireSafe Working Group has developed a network that continually informs the public in the Wildland Urban Interface about wildfire mitigation and survivable space around homes and partners with State and Federal agencies involved in fire-fighting. This network can provide critically important information on developing effective and appropriate fire-protection zoning in the WUI and Transitional Growth Area. Their efforts to create a Firewise and FireSafe community would be greatly enhanced by full implementation of the Helena Valley Area Plan recommendations.

TGA Education & Outreach Policy 3.1—Work with HBIA, HAR, the Chamber of Commerce and other real estate and development organizations.

The Helena Building Industry Association and Helena Association of Realtors have been particularly active participants throughout the process to update the County Growth Policy and develop this Helena Valley Area Plan. In addition to offering their insights on the problems and solutions related to planning for and accommodating future employment and population growth in the Valley, these groups have extensive networks of contacts within the community and can help communicate the need for change and the direction the proposed changes are heading.

APPENDIX A – ROAD CONDITION PHOTOGRAPHS



Figure 1: Photo Point: Intersection of Bonanza Court and Dutchman Drive



Figure 2: Photo Point: Bonanza Court and Dutchman Drive



Figure 3: Photo Point: Intersection of Brooklyn Court and Crescent Moon Drive



Figure 4: Photo Point: Brooklyn Court and Crescent Moon Drive



Figure 5: Photo Point: Intersection of Edgerton Road and McHugh Lane



Figure 6: Photo Point: Forestvale Road and Green Meadow Drive



Figure 7: Photo Point: Intersection of Kerr Road and Forestvale Road



Figure 8: Photo Point: Kerr Road and Forestvale Road



Figure 9: Photo Point: Intersection of McHugh Lane and Ronda Road



Figure 10: Photo Point: Intersection of McHugh Lane and Ronda Road



Figure 11: Photo Point: Intersection of McHugh Lane and Sewell Road



Figure 12: Photo Point: Intersection of McHugh Lane and Sewell Road



Figure 13: Photo Point: Intersection of Mill Road and Crescent Moon Drive



Figure 14: Photo Point: Intersection of Mill Road and Crescent Moon Drive



Figure 15: Photo Point: Intersection of Mill Road and Dimsdale Road



Figure 16: Photo Point: Intersection of Mill Road and Dimsdale Road



Figure 17: Photo Point: Intersection of Mill Road and Hedges Drive



Figure 18: Photo Point: Intersection of Mill Road and Hedges Drive



Figure 19: Photo Point: Intersection of Mill Road and Kerr Road



Figure 20: Photo Point: Intersection of Mill Road and Kerr Road



Figure 21: Photo Point: Intersection of Rainier Road and McHugh Lane



Figure 22: Photo Point: Intersection of Rainier Road and McHugh Lane



Figure 23: Photo Point: Intersection of Robin Road and Forestvale Road



Figure 24: Photo Point: Intersection of Robin Road and Forestvale Road



Figure 25: Photo Point: Intersection of Robin Road and Ronda Road



Figure 26: Photo Point: Intersection of Robin Road and Ronda Road



Figure 27: Photo Point: Intersection of Scribner Road and Green Meadow Drive



Figure 28: Photo Point: Intersection of Scribner Road and Green Meadow Drive



Figure 29: Photo Point: Intersection of Stadler Road and McHugh Lane



Figure 30: Photo Point: Intersection of Stadler Road and McHugh Lane